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The Career Maturity of Singaporean Adolescents — Where do We Stand and What Can be Done?*

Esther Tan

ABSTRACT

This study investigated the cognitive, attitudinal and behavioural aspects of the career maturity of 1380 secondary school and junior college students.

The findings reveal a general weakness in career exploration and in the students' development of career decision-making skills. While no significant gender differences can be observed, there is strong evidence to indicate that career development does mature with age. The findings also suggest a positive association between career maturity and academic performance and

between career maturity and parental involvement. Among the resource persons identified, teachers are the least consulted. They are also rated as the least helpful source of career information.

In the light of these findings, implications for the planning and implementation of career guidance in schools to enhance the career maturity of the students are discussed and suggestions made.

Introduction

Career maturity can be defined as readiness to cope with vocational development tasks. Ginzberg (1951), one of the earlier researchers in career development, believed that "to some degree, the way in which a young person deals with his occupational choice is indicative of his general maturity and, conversely, in assessing the latter, considerations must be given to the way in which he is handling his occupational choice problem" (p. 60). Extending this definition, Super (1957, p. 186) indicated that in a gross sense, career maturity can be described as "the place reached on the continuum of vocational development from exploration to decline". Later still, Crites (1961, p. 259) described it as "the maturity of an individual's vocational behaviour as indicated by the similarity between his behaviour and that of the oldest individuals in his vocational life stage".

Since the construct of career maturity is closely linked to the concept of vocational life stages, one needs to understand the latter in order to assess the former. Super (1963) sees 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. He believes that in expressing a vocational preference, a person puts into occupational terminology his idea of the kind of person he is; that in entering an occupation, he seeks to implement a concept of himself; that in getting established in an occupation, he achieves self-actualization. In one of his earlier works, Super (1957) outlines five vocational life stages in career development:

1. *Growth Stage (Childhood)*

In this stage the child develops a self-concept

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through identification with key figures at home and in school. Needs and fantasies are dominant early in this stage but as the child grows older, he engages in increasing social participation and reality testing.

2. *Exploration Stage (Adolescence)*

This stage is characterized by self-examination and role tryout. The adolescent continues his quest for a career self-concept through career exploration which often culminates in the crystallization of a vocational preference by the end of adolescence.

3. *Establishment Stage (Adulthood)*

Having decided on an occupational field, the individual makes an effort to find his place in the world of work. There may be some trials initially, resulting in consequent shifting and finally stabilization in the choice of occupations.

4. *Maintenance Stage (Middle Age)*

Having found a place in the world of work, the concern now is to hold it. Little new ground is broken in this stage but there is continuous advancement along established lines.

5. *Decline Stage (Retirement)*

As physical and mental abilities decline, work activity goes through a period of deceleration and finally ends in retirement.

In the context of this research study, career maturity of the adolescents was measured in terms of a) their orientation towards the need for and the usefulness of career planning, b) the

extent of their involvement in career exploration and their readiness to crystallize a career preference c) the extent of their occupational knowledge and awareness of the world of work and d) the level of their career decision-making skills.

The Sample

Using the cross-sectional design and stratified random sampling techniques, a sample of 1380 students was drawn from 14 secondary schools and 3 junior colleges. Stratification was based on geographical location, type of school as well as distribution of the students in terms of age, gender and curriculum. Tables 1 and 2 illustrate the sample distribution by age, gender and curriculum.

Instrumentation

In this study, an adapted form of the Australian Career Development Inventory was administered to the students in groups of 40 in their respective schools.

The CDI-A consists of four scales designed to assess the attitudinal, cognitive and behavioural aspects of career development. Further more, scores on all the scales can be combined into a single score which, to a certain extent, indicates the career maturity of the subjects. The scales and composites are as follows:

Career Planning (CP)

This section is intended to reflect the students' orientation towards the need for and usefulness

TABLE 1: DISTRIBUTION OF SAMPLE BY GRADE AND GENDER

Grade	Male		Female	
	Population	Sample	Population	Sample
Sec. 1	11,697	120	11,701	120
Sec. 2	12,488	130	12,617	130
Sec. 3	11,175	110	11,641	120
Sec. 4	11,717	120	12,613	130
J.C. 1	5,332	84	5,748	116
J.C. 2	4,459	81	5,187	119
Total	56,868	645	60,507	735

TABLE 2: DISTRIBUTION OF SAMPLE BY CURRICULUM

Course	Population	Sample	%
General	46,494	500	1.1
Science	32,986	340	1.0
Arts	37,950	250	0.7
Technical	18,710	110	0.6
Commerce	15,089	180	1.2

of career planning. It comprises 20 items in which the student reports on the type and extent of career planning he or she has engaged in and the degree of the engagement; for example, in talking about career plans with an adult and in seeking career information.

Career Exploration (CE)

This 16-item scale is also self-report in nature. The first eight items ask the students to rate relatives, friends, significant adults, printed matters and other media as sources of career information. The remaining eight questions ask for ratings of the usefulness of the information received from these sources.

World of Work Information (WW)

This is a cognitive scale intended to assess the career awareness and occupational knowledge that contribute to successful career planning. The first eight items assess knowledge of the career developmental tasks in the Exploratory and the early Establishment stages as described by Super (1957). The remaining 16 questions test knowledge of the occupational structure of sample occupations ranging from semi-skilled to professional jobs and of techniques for getting and holding a job.

Decision-Making (DM)

This scale consists of 12 items which involve brief sketches of people making career decisions. The situations cover a range of educational and occupational levels and both traditionally male and female occupations. The rationale is that students who can solve the career problems in these sketches successfully are

capable of making wise decisions about their own careers. Thus the scale attempts to measure the ability to apply occupational knowledge to career decision-making.

Career Orientation Total (COT)

The Career Orientation Total score can be obtained by combining all the scales (CP, CE, WW and DM). This general total score reflects the career maturity of the students.

Results

a) *The Career Planning of Singaporean Adolescents*

The findings as shown in Figure 1 reveal that as far as career planning is concerned, there is among Singaporean students a preoccupation with educational planning such as the choosing of a school/junior college or deciding on subject specialization. In terms of goal setting in career planning, the majority of the students are still at the stage of considering a possible occupational field rather than thinking about a specific occupation, let alone making preparations for a future career. For those who have some tentative choices, they admit that they know very little about what people actually do on the job, the abilities needed, the working conditions, starting pay, the training required and ways of entering their preferred occupations. In other words, they have not achieved what Super (1957) describes as an important vocational developmental task in adolescence — the crystallization of a career preference.

b) *Career Exploration of Singaporean Adolescents*

Figure 2 shows that among the students surveyed, the most popular source of information seem to be role models in the preferred occupation, followed by printed materials such as pamphlets and information booklets and their parents. Figure 3 shows their ratings of the usefulness of these sources of occupational information. Interestingly enough, school teachers are the last persons they would consult about their career plans. This could be due to

Figure 1: Career Planning of Singaporean Pupils

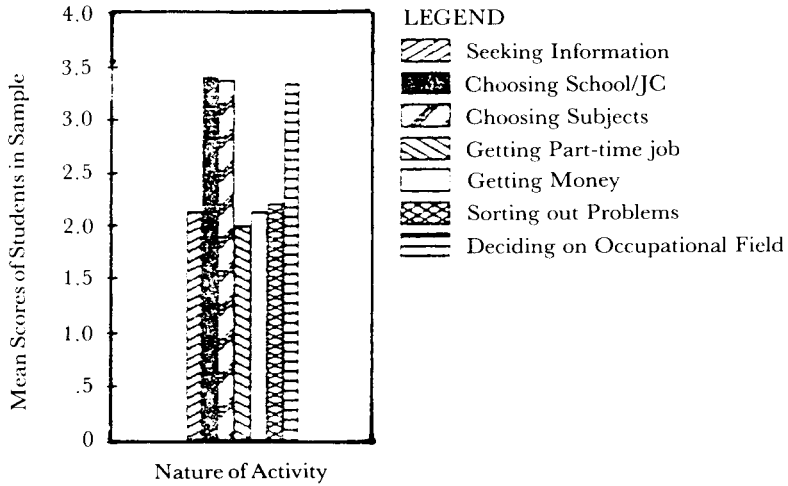
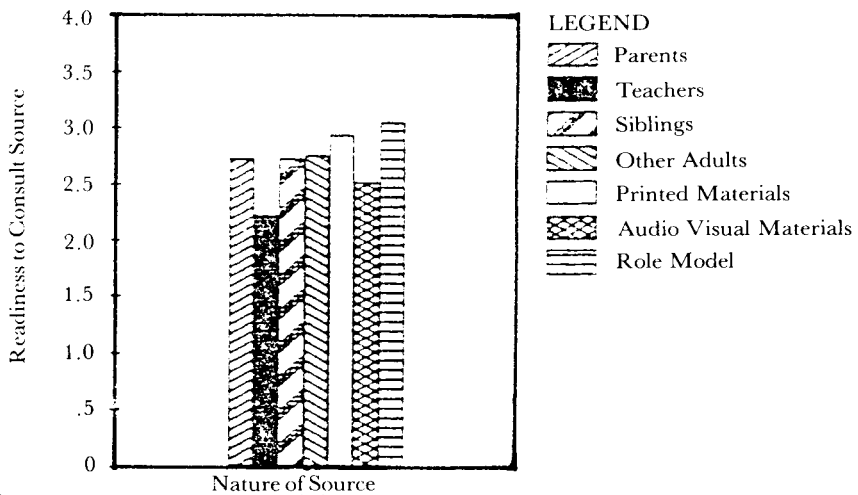
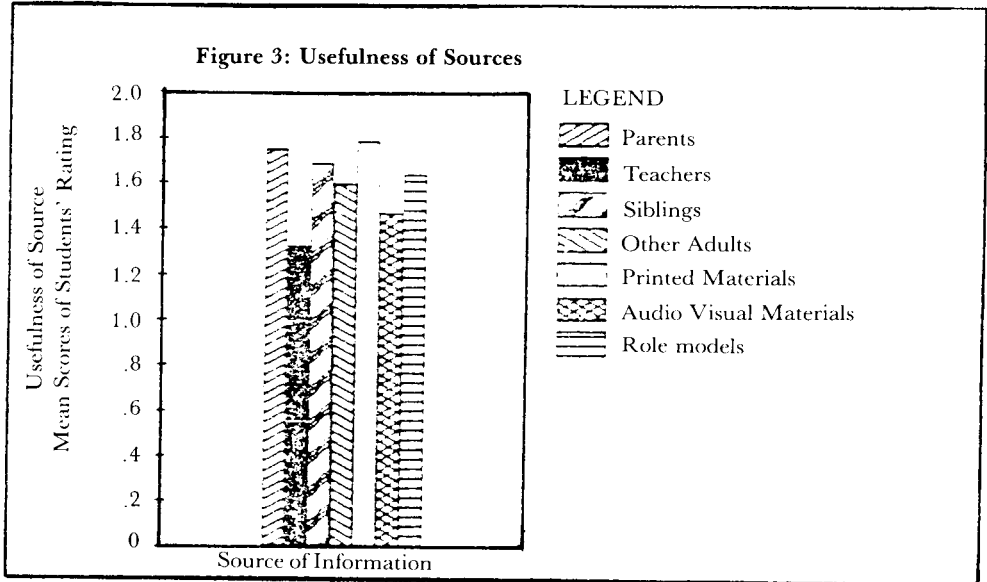


Figure 2: Sources of Career Information

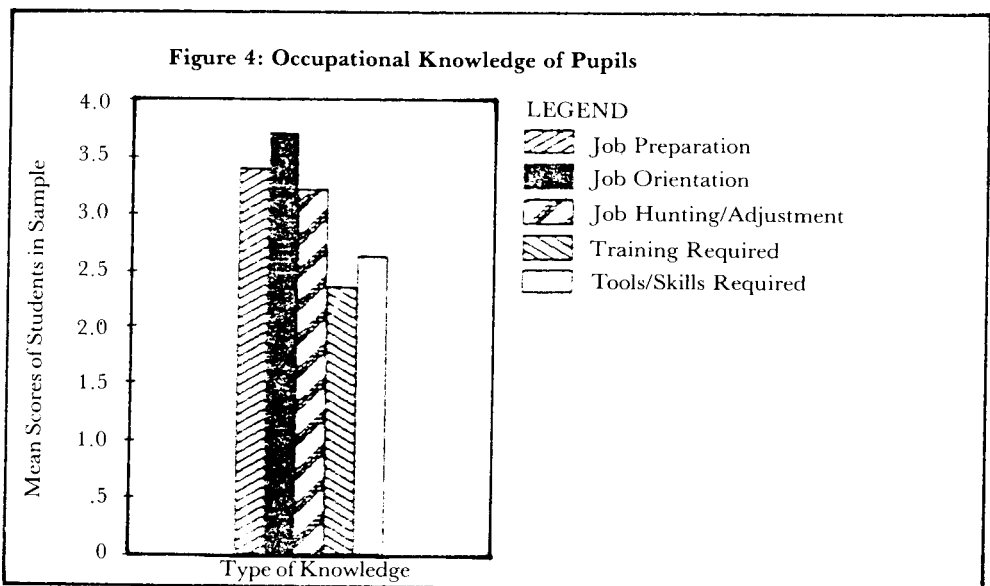


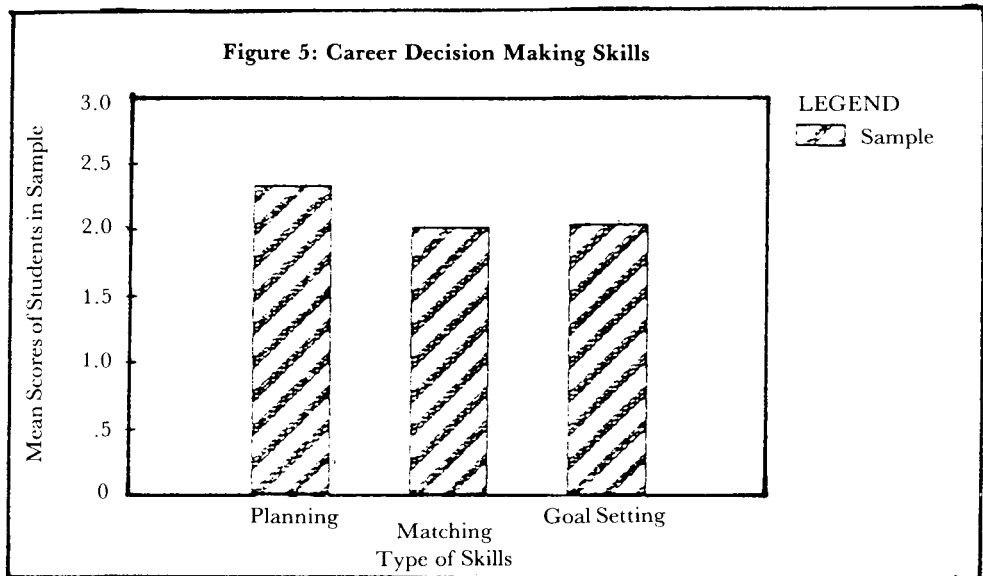


the fact that career guidance is still not a common practice in most Singapore schools and teachers are still thought of mostly as dispensers of knowledge rather than resource persons in career planning. It is hoped that with the current emphasis on Pastoral Care and Career Guidance in Singapore schools, the extended roles of the teacher as mentor and counsellor will be more readily accepted.

c) *World of Work Information*

This subscale of the Career Development Inventory attempts an objective assessment of the students' knowledge and understanding of the world of work in terms of a) knowledge about job preparation (how to go about preparing for a future career), b) job orientation (having a realistic and sound understanding of





job satisfaction and employment outlook), c) knowledge about job hunting, training required for sampled occupations and tools and skills required for a variety of occupations ranging from semi-skilled to professional jobs.

Figure 4 shows that on the whole the students are weak in their knowledge about training requirements and the kind of tools and skills required for a particular job. They are more inclined to give the correct answers to general questions pertaining to job hunting skills and the concept of job satisfaction (job orientation).

d) *Career Decision-making Skills*

This subscale assesses decision-making skills pertaining to planning for a career, matching self-awareness to job knowledge and setting realistic career goals, all of which are considered as indicators of career maturity. As shown in Figure 5, analysis of the data shows that among the four aspects of career maturity measured, the students are weak in the area of career decision-making, especially in linking self-knowledge to decision-making.

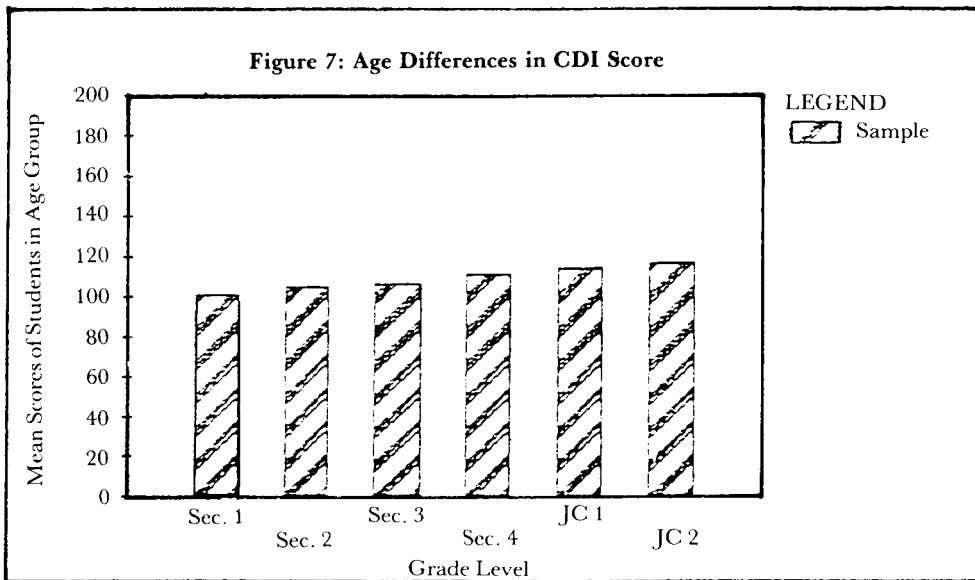
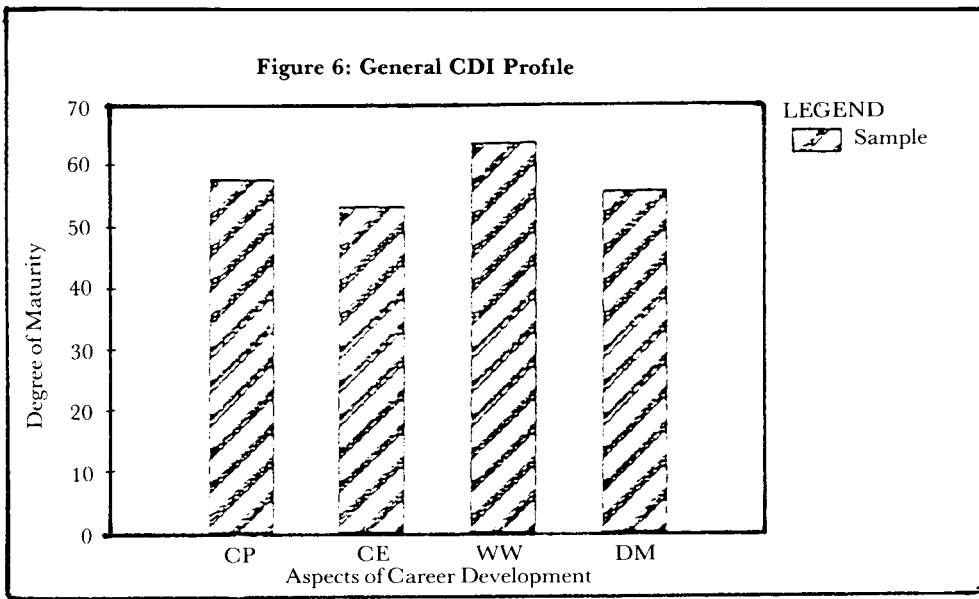
The Career Maturity of the Adolescents — Where do We Stand?

Having examined the four aspects of career development separately, the next step is to

piece all the information together to look at the overall developmental pattern of Singaporean students. Figure 6 gives a graphical presentation of this general pattern, showing that on the whole the weak areas of Singaporean adolescents in career development are “career exploration” and “Decision-making”. The former measures the extent and readiness to seek career information while the latter assesses career decision-making skills.

Age Differences in Career Maturity

Close scrutiny of the data shows age differences amongst Singaporean adolescents as evidenced in a gradual and steady increase across the age groups in their career maturity mean scores (Fig. 7). Further more, analysis for variance using Anova procedures reveals that except in the subscale “Career Exploration”, such age differences are statistically significant. This means that as the students grow older, they become increasingly more involved in career planning, acquire a greater amount of work knowledge and develop a higher level of career decision-making skills. Such results confirm the findings of researchers in the U.S., Canada and Australia as well as lending support to Super’s developmental career self-concept theory (Jepsen, 1975; Khan & Alvi, 1981; 1983;



Lokan, 1984; Noeth & Prediger, 1978; Super, 1960; Wehrly, 1973).

Sex Differences in Career Maturity

With regard to the relationship between career maturity and gender, several American and Canadian studies have reported significant sex differences in career maturity in favour of

females (Herr & Enderlein, 1976; Khan, Alvi & Kwong, 1982; Omvig & Thomas, 1977). In the Singapore sample, pair-wise t-tests reveal significant sex differences in “career planning” in favour of the boys and in “world of work information” and “decision-making” in favour of the girls. However, there is no significant sex differences in the overall career maturity of the students in the sample.

TABLE 3: THE CAREER DEVELOPMENT OF SINGAPOREAN STUDENTS

Comparison by Sex

CDI Variables	Mean Score of,		Total Mean of Sample	Total Means as % of Total Score
	Boys	Girls		
CP	54.0	51.9	52.9	57.51
CE	34.6	33.9	34.3	53.54
WW	14.8	15.9	15.4	64.04
DM	6.2	7.2	6.7	56.08
CDA	88.6	85.9	87.2	55.88
CDK	21.0	23.0	22.1	61.38
COT	109.7	108.9	109.3	56.91

Career Development Inventory Variables:

- CP = Career Planning CE = Career Exploration
- WW = World of Work Information
- DM = Career Decision Making
- CDA = Career Development Attitude (CP + CE)
- CDK = Career Development Knowledge (WW + DM)
- COT = Career Orientation Total (CDA + CDK)

The Relationship Between Career Maturity, Curriculum and Academic Achievement

Some American studies have reported that at all age levels, students from academic courses perform better in career maturity measures than students in business courses, vocational

courses and general courses (Herr & Enderlein, 1976, Khan & Alvi, 1985). Figure 8 shows that in the Singapore study, analysis of variance shows some significant differences in the career maturity mean scores of students enrolled in the different curricular groups in favour of the Arts students and Science students. Such results seem to support the findings of research studies conducted overseas.

To check out the claim that career maturity is often positively linked to academic achievement (Westbrook, 1983), a comparison is made between the Career Maturity mean scores of high-achievers and low-achievers in the sample. The results of analysis shows significant differences between the two groups in the "World of Work Knowledge" ($t = -10.83$, $df = 743$, $p < .001$) and "Decision-Making" ($t = -8.22$, $df = 743$, $p < .001$) subscales and in the overall Career Maturity Score ($t = -4.57$, $df = 743$, $p < .001$). As these two subscales measure the cognitive dimension of career maturity, such findings lend support to Westbrook's (1983) observation that there is a positive correlation between the cognitive aspect of career development and academic performances.

Home Influences on Career Maturity

Finally, to investigate the extent of home influences on the career maturity of adolescents, a

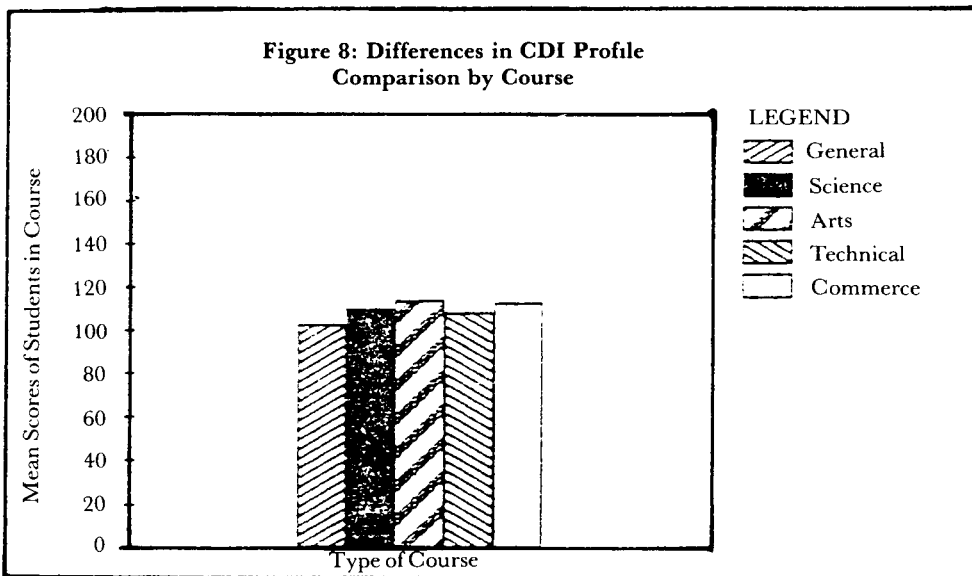
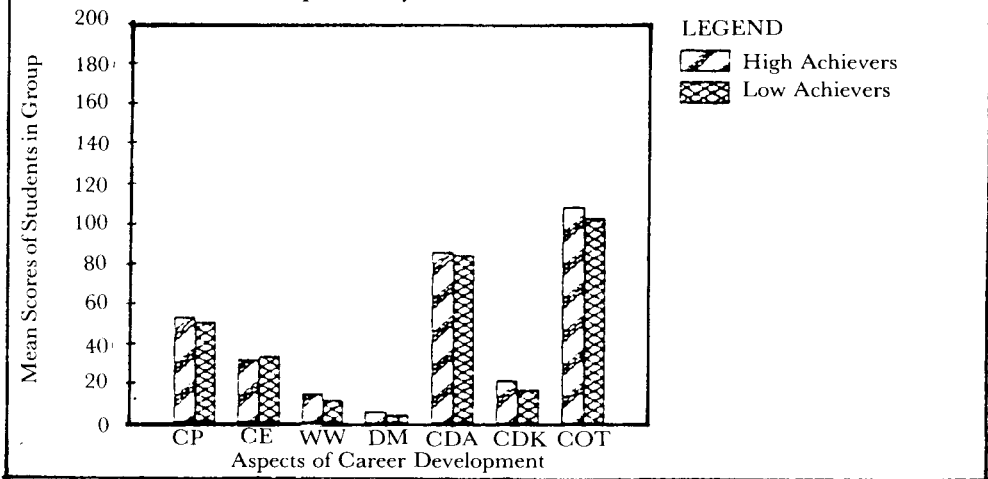


Figure 9: Differences in CDI Profile Comparison by Academic Achievement



questionnaire was also administered to the students to assess the extent they discussed their career plans with their parents and the availability of career role models in their homes, etc. It is interesting to note that correlational analysis reveals a strong link between the extent of parental involvement and the students' level of career maturity. In other words, those who had frequently consulted their parents regarding their career plans also obtained higher career maturity mean scores. Such results confirm the observations of American researchers that parental involvement in the career development of children and adolescents could enhance the career maturity of the latter (Maccoby & Jacklin, 1974; Goodale & Hall, 1976).

Summary of Findings

The career maturity profile of Singaporean adolescents reveals a general weakness in career exploration and in career decision-making skills. Nevertheless there is strong evidence to indicate that career development does mature with age.

Although girls in the sample fare better in the areas of occupational knowledge and career decision-making, no significant sex differences can be found in the career maturity of the students.

There is some evidence to suggest that career maturity is positively correlated with academic achievement although the link between academic curriculum and career maturity cannot be firmly established in this study.

In the area of career planning, Singaporean adolescents pay more attention to educational planning such as choosing schools and deciding on subject specialization rather than thinking and planning about a future career.

With regard to career exploration, parents and siblings are popular resources for information though not always considered helpful. There is also evidence to show that parental involvement is positively linked to the career maturity of the students. Teachers are the least consulted and are also rated the least useful as resource persons.

What Can be Done?

This research study has provided insight into the affective, cognitive and behavioural aspects of career development of Singaporean adolescents. It has also yielded findings that have important practical implications for the planning and implementation of career guidance in Singapore schools.

Firstly, the study has established the link between career self-awareness and career matur-

ity and points to the absolute necessity of including a component on developing career self-awareness in any comprehensive career guidance programme for students.

Secondly, the significant age differences in the CDI mean scores of the students are clear indications of the developmental nature of career maturity. This not only confirms Super's theory of career development but also highlights the importance of having on-going and systematic career guidance in the schools. To be effective, career guidance in the schools should be a long-term, developmental process where at each stage of their school career (primary, secondary, post-secondary and tertiary), students are taught specific skills pertaining to their needs and the status of their career development.

In the primary school, the goals of career guidance should be to foster positive study habits and work habits; to help pupils achieve a sense of competence; to expose them to the concept of work and to help them develop an unbiased, non-stereotyped base of information from which to plan later educational and occupational decisions.

In the secondary school, the goals should be to enhance career self-awareness; to encourage career exploration; to inculcate positive work attitudes and work values and to teach decision-making skills. The latter is specially important as the results of this study show that regardless of age, students in the sample are persistently weak in career decision-making skills and lacking in vocational information-seeking behaviours. Career guidance programmes in schools should try to address these two problem areas.

While the school can play a vital part in enhancing the career development of the students, the role of the home should never be overlooked. This study has found that parental involvement is positively linked to the career maturity of adolescents in Singapore schools. Such a finding points to the importance of parent education programmes and the involvement of parents in career guidance programmes in schools.

Last but not the least, the results of this research study reveal that Singaporean students are preoccupied with educational planning while neglecting career planning. They spend much time and effort planning their academic studies and looking into matters such as the choice of school/college. They do not seem to see any link between their school studies and their future career, let alone planning one with the other in mind. In other words, the school and the world of work are seen as two distinct entities that have little association with each other. One needs to bridge this gap by bringing about a smooth transition from the school to the world of work. This can best be done by incorporating educational guidance as part and parcel of career guidance.

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