
Title	The influences of school and home factors on the career development of secondary school students
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Source	<i>Singapore Journal of Education</i> , 9(1), 37-47
Published by	Institute of Education (Singapore)

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The Influences of School and Home Factors on the Career Development of Secondary School Students*

Esther Tan

ABSTRACT

This study examined the level of career maturity of 324 secondary school students and the impact of career guidance and parental involvement on the career development of these students. The results showed that students who had been exposed to some form of career guidance in school scored higher on the Career Attitude Scale. Those who had received home support in the form of parental involvement in career planning

and availability of career role models also showed a higher level of career maturity in terms of career planfulness and work orientation. Although career attitude was found to mature with age, there was no significant sex differences in the career development of these students. Such findings highlighted the importance of career guidance in school and home support in enhancing the career maturity of our students.

The Concept of Career Development

Career development is a process involving both growth and learning, which takes place over a considerable period of time. This process is also a multidimensional one that encompasses all aspects of an individual's physical growth as well as psychological maturation.

Although all vocational psychologists seem to agree that career development is a development process, Jepsen & Dustin (1984) identified two fundamentally different approaches in the investigation of vocational behaviour, namely, the structural perspective and the developmental perspective. The major distinction lies mainly between those who emphasize that development results in the establishment of stable qualities such as interests, abilities and personality traits (Holland, 1966; Gottfredson,

1981) versus those who emphasize the development of qualities that undergo orderly changes over time such as the conceptualization of self as worker and the capacity to work (Super & Overstreet, 1960; Savickas; 1984). This study has adopted the developmental perspective in its line of inquiry, using Super's developmental self-concept theory as the basis of its theoretical framework.

Super and his associates (1963) identified two elements as essential to vocational development — self-concept development and vocational self-actualization. They believe 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. The occupation thus makes possible the playing of a role appropriate to the self-concept. In one of his earlier works, Super (1957) outlines the

*The survey reported in this paper is part of a pilot study conducted by the author as preliminary investigations for her Ed.D. thesis at the Ontario Institute for Studies in Education, Canada.

following five vocational life stages in career development:-

1. **Crystallization of a Vocational Preference**

This task requires the individual to formulate ideas about work appropriate for himself/herself. It also requires the development of an occupational self-concept that will help mediate the individual's tentative vocational choice by means of relevant educational decisions. While the crystallization task can occur at any age, it most typically occurs in adolescence.

2. **Specification of a Vocational Preference**

Here the individual is required to narrow a general career direction into a specific one and take the necessary steps to implement the decision. This specification task is most prominent in young adulthood.

3. **Implementation of a Vocational Preference**

This task requires the individual to complete some training and enter a relevant employment.

4. **Stabilization within a Vocation**

This task is represented by behaviour which reflects settling down within a field of work and the use of one's talents in such a way as to demonstrate the appropriateness of the career decisions previously made. It is to be expected that an individual changes positions during the stabilization period but rarely changes vocation.

5. **Consolidation of Status and Advancement**

This final vocational developmental task is faced by the worker who has established a career but continues to develop skills to achieve status and security.

As this study focuses on the career development of adolescents, special attention is given to the vocational life stage and the vocational developmental task associated with adolescence, namely, crystallization of a vocational preference and career exploration. According to Super et al. (1963) the attitudes and vocational behaviours specific to crystallization and exploration are:

- (a) Awareness of the need to crystallize a vocational preference
- (b) Use of resources in career planning
- (c) Awareness of factors to consider in formulating a vocational preference
- (d) Awareness of contingencies which may affect vocational goals
- (e) Differentiation of interests and values
- (f) Awareness of present-future relationships
- (g) Formulation of a generalized vocational preference
- (h) Consistency of vocational preference
- (i) Possession of information concerning the preferred occupation
- (j) Planning for the preferred occupation
- (k) Wisdom of vocational preference, and
- (l) Confidence in the vocational preference.

Objectives of the Survey

In September 1986 a survey was carried out to investigate the career development of adolescent students in Singapore. The purpose of this study was two-fold; a) to ascertain the type and extent of help secondary school pupils and junior college students receive from their school and their home in the areas of career planning and career exploration and b) to determine the effects of school career guidance and parental involvement on the career development of these students.

The Sample

The sample comprised 244 students from a government secondary school and 80 students from a government-aided junior college, making a total of 324 students in the following distribution:

TABLE 1 — DISTRIBUTION OF THE SAMPLE

Total No. of Students N = 324

Sex/Class	Sec. 1	Sec. 2	Sec. 3	Sec. 4	Pre. U1	Pre. U2	Total
Male	30	26	15	16	22	18	127
Female	50	33	40	34	18	22	197
Total	80	59	55	50	40	40	324

The Instruments

A General Information Questionnaire was used to investigate home factors and school factors related to the students' career development. The 25-item questionnaire comprises three sections. The first section, You and Your School is designed to ascertain the students' participation in extra-curricular activities, their exposure to career guidance activities and self-rating of their school performance. A second section, You and Your Home solicits information on their educational aspirations and parental involvement in their career planning. The last section entitled, You and Your Future explores the students' occupational preferences, their self-rating of the extent of their work knowledge and self-knowledge, availability of help and role models in career planning and anticipated obstacles in implementing their career goals.

To assess their levels of career development, Crites' Attitude Scale was given to the students, which elicits the feelings an individual has about making a career choice and entering the world of work. The Scale comprises 47 true-false items to measure five attitudinal clusters:-

1. **Decisiveness** (10 items): the extent to which an individual is definite about making a career choice.
2. **Involvement** (10 items): the extent to which an individual is actively participating in the process of making a career choice.
3. **Independence** (10 items): the extent to which an individual is self-reliant or relies upon others in the choice of an occupation.

4. **Orientation** (10 items): the extent to which an individual shows readiness for and interest in considering a future career. This subscale also reflects whether an individual is pleasure-oriented or task-oriented in his/her attitude towards work.
5. **Compromise** (7 items): the extent to which an individual is willing to compromise between needs and reality in considering a career choice.

Taken together, the five subscores form a total Attitude Score to reflect the maturity of an individual in his/her attitude towards work. The internal consistency of the instrument (KR20) is reported to be 0.74 (Crites, 1978) and test-retest reliability over a one year period is 0.71.

RESULTS

The School Factor

Results obtained from the General Information Questionnaire revealed that the school played a minimal part in the career development of these students. There was no formal career guidance programme in both schools surveyed although activities such as career talks and visits to industries were organized on an ad hoc basis. The responses showed that 33.0% of the students took part in one such activity while 17.3% took part in more than one activity, leaving 49.7% of the whole sample without any exposure to any form of career guidance. The most common activities participated in were career talks, visits to industries and film/video shows on careers. Among those who had taken part in some form of career guidance, about

half (50.3%) had found the activities useful. It is interesting to note that only 3.7% of the whole sample had obtained help from their teachers in relation to career planning, an indication that career guidance was not a common practice in the schools, whether formally or informally.

Although research in the United States and Canada have found a significant relationship between academic performance and career maturity (Breton 1972; Westbrook, 1983) and that a positive self-concept is often linked to more mature work attitudes and greater career decision skills (Lawrence & Brown 1976), results of this study do not lend support to such claims at all. The students were asked to rate their own school performance on a 5-point scale (bottom 10% of class, below average, average, above average and top 10% of class). They were also asked to list the number of extra-curricular activities they took part in school. These two questions are based on the assumption that good academic performance (even if only self-rated) often leads to more positive self-concept, both of which are reportedly linked to greater career maturity. It is further assumed that active participation in extra-curricular activities allows for exposure to non-academic and sometimes vocation-linked activities as well as opportunities for training in leadership and decision-making skills. In this study, however, there is lack of empirical evidence to support these assumptions as analysis of data does not show any significant relationship at all between the students' par-

ticipation in extra-curricular activities, their self-rated academic achievement and their performance on the Attitude Scale.

On the other hand, it is interesting to note that career guidance, even though organised on an ad hoc basis, seems to have a bearing on the career development of these students. As shown in Table 2, Pearson product-moment Correlation reveals that except for the variable "Independence" in the Attitude Scale, there is significant association between the students' participation in career guidance activities and their career attitude maturity. Students who had participated in more than one career guidance activities scored higher than the non-participants in four dimensions of the Attitude Scale and analysis of variance shows these differences to be significant at the 0.05 level.

It would seem, therefore, any form of career guidance is better than no career guidance at all, a finding that is borne out by research conducted overseas. Anderson & Heimann (1967) tested the supposition that short term vocational counselling would contribute to the career development and vocational maturity of adolescents. His findings of a significant difference between the experimental and control groups indicated that the treatment had been effective. Myers et al. (1975) investigated the effects of a computer-based educational and occupational exploration on the career maturity of tenth graders. They found that the users of the computer programme showed greater gains than the non-users in degree of vocational planfulness as well as knowledge and

TABLE 2 — CORRELATION BETWEEN PARTICIPATION IN CAREER GUIDANCE AND DEVELOPMENT OF WORK ATTITUDES

N = 324

Work Attitude Variables	Participation in More than One CG Activities
Decisiveness	0.14*
Involvement	0.20***
Independence	0.08
Orientation	0.18***
Compromise	0.13*
Attitude Total Score	0.29***
*** p < 0.001	
** p < 0.01	
* p < 0.05	

use of resources for career exploration. Yongue et al. (1981) evaluated the use of field exposure and didactic classroom instruction in career guidance and found that field exposure was a more effective method in enhancing career maturity. In a more recent study, Glaize & Myrick (1984) compared the effectiveness of a computer-assisted approach, a group counselling approach and the combination of both versus no treatment on enhancing career maturity. When the data were analysed, significant differences of less than 0.05 level occurred for each of the three career guidance groups when compared to the control group. No significant differences occurred, however, among the three experimental groups. This led the researchers to conclude that any kind of treatment is better than no treatment in helping adolescents to develop career maturity.

The Home Factor

Research has established a close link between the family and the career development of children and adolescents. Super and Overstreet (1960) emphasized the impact of home life on the vocational interests and work values of adolescents which indirectly influence their choice of vocations at a later stage. Burlin (1976) found significant association between the adolescent student's occupational aspiration and their parents' occupational status.

Some items in the General Information Questionnaire were designed to investigate the extent of parental involvement in the career development of these adolescent students. The results show that only 23.1% of the students had ever discussed their career plans with their

fathers while 32.1% had consulted their mothers at one time or another. It seems that the older adolescents were more inclined to involve their parents in their career planning. Also discussions were held more often with mothers than with fathers, probably due to the fact that as most of the mothers in the sample were housewives, they were more readily available for consultation. Still, compared to research findings elsewhere, there is minimal involvement among Singaporean parents in the career development of their children. In the United States, for example, a nation wide study on the career development status and needs of American youth revealed that 90% of the 11th graders (equivalent to Pre U 1 students in Singapore) discussed their occupational choices with a parent, relative or guardian (Noeth, Roth & Prediger, 1975). Details of the extent of parental involvement in the Singapore sample are presented in Table 3.

Despite the fact that some of the students consulted one or both parents in their career planning, not many considered their parents as a useful source of help. When asked who had helped them most so far in their career planning, only a small percentage cited their parents as helpful resource persons. About 7.7% had received help from their father only, 6.2% from mother only and 4.0% from both parents. The majority (63.5%) felt that they had no one to turn to for help. For these students, the limitation of their parents as resource persons in career planning could be due to the fact that only about 5% of the parents had tertiary education with the majority having either primary education (43.5% of the fathers

TABLE 3 — DISCUSSION WITH FATHER/MOTHER
IN CAREER PLANNING

N = 324

Class/Frequency in Level Discussion	N	Discussion with Father %	Discussion with Mother %
Sec. 1	80	5.0	17.5
Sec. 2	59	23.7	28.8
Sec. 3	55	20.0	32.7
Sec. 4	50	22.0	26.0
Pre. U1	40	40.0	45.0
Pre. U2	40	48.7	59.0

and 50.0% of the mothers) or secondary education only (34.9% of the fathers and 21.9% of the mothers). They were therefore not in a very good position to advise their children about careers.

In another attempt to investigate parental involvement in the career planning of these adolescents, the students were asked to list their fathers' and mothers' career expectations for them if any. 79.3% mentioned that their fathers never indicated any expectations while 70.7% of the mothers had no preferences either. Among those whose parents had voiced their opinions, practically all desired professional jobs for their children (10.2% of the fathers and 18.2% of the mothers). When asked whose expectations they would like to meet, however, only 15.1% of the students wished to please their parents while the majority seemed to have a mind of their own as 77.8% of the students chose the response "My own Choice".

With regard to their own career expectations, 46.6% did not have any definite job preferences. This figure of the "indecisive" students is quite high compared to situations overseas. In a Canadian study, for example, Breton found that 33.6% of 150,000 high school students surveyed had not formulated any career plans yet (Breton 1972). Among those who had tentative plans in the Singapore sample, however, practically all (40.4% of the overall sample) aspired to professional jobs. Considering that only 5% of the parents were

professionals and bearing in mind the earlier finding that the parents vied for professional jobs for their offsprings as well, one can see a consistent desire in both generations to upgrade themselves in the social/occupational ladder.

Availability of role models is another important factor affecting the career development of adolescents. There is much research evidence to show that significant adults, especially parents, are likely models in the acquisition of sex-typed behaviour which in turn influence the career choice of children and youths (Werts 1968; Maccoby & Jacklin 1974). For these 324 Singaporean adolescents, however, role models in career planning did not come by readily. Only 4.9% identified with their fathers in planning their career goals while 1.5% took after their mothers. Considering that only 4.3% of the fathers and 1.5% of the mothers were professionals while majority of the students aspired to professional jobs, their lack of role models is quite understandable. This also explains why a greater number looked for role models in other significant adults in their lives (17.9%) while others turned to their peers (13.4%). The majority had no role models at all to identify with in their career planning (62.3%).

To investigate the much cited link between the family and the career development of adolescents, correlational analysis was performed to establish the relationships between family involvement and the career development of the students. Table 4 presents the Pearson product-moment correlations be-

TABLE 4 — CORRELATION OF CAREER ATTITUDE VARIABLES AND FAMILY VARIABLES

Family Variables	Career Attitude Variables					
	Decisiveness	Involvement	Independence	Orientation	Compromise	Attitude
1.	0.24***	0.02	-0.07	0.21***	0.11	0.23***
2.	0.24***	0.17**	-0.11	0.23***	0.11	0.24***
3.	0.13*	0.04	0.02	0.17**	0.12*	0.20***
4.	0.13*	0.14*	-0.01	0.15**	0.09	0.19***
5.	0.16**	0.14*	-0.02	0.07	0.14*	0.20***

*** p < 0.001

** p < 0.01

* p < 0.05

Family Variables

1 = Discussion with Father

3 = Father's career expectation

5 = Availability of role models in career planning

2 = Discussion with Mother

4 = Mother's career expectation

tween the Attitude Scale variables and five family variables. The data show very clearly that parental expectations and parental involvement in career planning do exert considerable influence on the career development of adolescents. Students who had discussed their career planning with their parents and who had role models in the family seemed to have more definite career plans. They also displayed more realistic work orientation and scored higher in the Attitude Scale. This is indicative of a higher level of career attitude maturity.

Where Do the Students Stand in Career Maturity?

Although Super and his associates (1963) identified career exploration and crystallization of vocational preference as the main development tasks in adolescents, it would seem that majority of the adolescent students surveyed had spent little time and effort in thinking about their future careers, let alone making tentative plans or preparing for them. Among those who

had indicated some sort of career preferences, more than half were not sure if their tentative choice was a suitable one (55.2%). When asked to list what they anticipated as possible obstacles in the materialization of their occupational goals, they envisaged that lack of experience would be their greatest obstacle (28.4%), followed by lack of proper training (22.5%), tough competition from others (22.2%) and lack of job-hunting skills (11.1%).

The relationship between self-awareness and career development has been much discussed in the literature. Holland (1981) found a positive correlation between maturity in career attitude and self-concept scores, an observation shared and supported by many other researchers (Octavia et al, 1976; Walsh & Osipow 1973; Poole & Cooney 1985). In this study, an attempt was made to determine the students' extent of self-knowledge and work knowledge by means of self reports which, to a certain extent, indicate their level of self-awareness and self-confidence.

As can be seen in Tables 5 and 6, majority of the students admitted that they did not have

TABLE 5 — EXTENT OF SELF-KNOWLEDGE

N = 324

Class Level/Extent of Knowledge	None %	Insufficient %	Sufficient %
Sec. 1	8.8	63.8	27.4
Sec. 2.	5.1	69.5	25.4
Sec. 3	1.8	67.3	30.9
Sec. 4	2.0	68.0	30.0
Pre. U1	0.0	67.5	32.5
Pre. U2	2.6	30.8	66.6

TABLE 6 — EXTENT OF WORK KNOWLEDGE

N = 324

Class Level/Extent of Knowledge	None %	Insufficient %	Sufficient %
Sec. 1	15.0	73.8	11.2
Sec. 2	11.9	71.2	16.9
Sec. 3	3.7	65.5	30.8
Sec. 4	8.0	78.0	14.0
Pre. U1	0.0	80.0	20.0
Pre. U2	0.0	69.2	30.8

sufficient knowledge of their vocational interest and abilities to make a sound decision about their future careers (66.3%). Neither did they have sufficient knowledge about the world of work to help them make a realistic career choice (80.2%). However, there seems to be increasing confidence across the age groups.

Where do our secondary school students stand in career maturity? One way to find out is to compare their performance in the Attitude Scale with norms obtained in studies conducted in other parts of the world.

Table 7 presents the mean scores of the six age groups in the various aspects of the Attitude Scale. The American norms as reported by Crites were derived from a sample of 74,000 American students (Crites 1978). It is obvious that the Singaporean students are less vocationally mature compared to their American counterparts. They seem less decisive about making a tentative career choice and less mature in compromising their ideals with reality. They are also less ready in considering their future careers as indicated by the lower mean score in the "Orientation" subscale. However, bearing in mind that our students have been hardly exposed to career guidance whereas career guidance is a regular feature in the American school system, such results are

not unexpected. How well oriented an individual is towards work depends on his exposure to the world of work and the amount of occupational knowledge he possesses. In the United States it is a common practice for high school students to obtain part-time employment or summer jobs during vacations but not so in Singapore. This lack of exposure to the world of work, coupled with the lack of career guidance at home and in school, may explain the differences in the mean scores of the two groups.

Age Differences in Career Attitude Maturity

To further investigate the profiles of work attitude development of the six age groups, all the raw scores are converted into T-scores with the mean fixed at 50 and the standard deviation fixed at 10 to allow for a common basis for comparison.

Table 8 shows the group means of the standard scores in the five subscales as well as in the total Attitude Score of the whole sample across age groups. Careful study of the data reveals three interesting observations. Firstly, one can note an increasing maturity in work attitude in terms of a gradual increase in the mean scores across the sample. This supports the findings

**TABLE 7 — THE DEVELOPMENT OF WORK ATTITUDES.
A COMPARISON OF AMERICAN AND SINGAPOREAN ADOLESCENTS.**

N = Singaporean Sample: 324
American Sample: 74,000

Class Level	Sample	Work Attitude Variable					
		Decisiveness	Involvement	Independence	Orientation	Compromise	Attitude
Sec. 1	S	3.99	7.01	7.20	3.38	3.47	24.64
	A	4.87	8.33	7.62	6.19	4.62	29.54
Sec. 2	S	3.66	7.19	6.92	2.97	3.88	24.61
	A	5.06	8.52	7.88	6.71	4.91	31.31
Sec. 3	S	4.13	7.38	7.11	3.73	4.09	26.62
	A	5.23	8.73	8.30	7.05	5.15	32.01
Sec. 4	S	4.00	7.38	7.54	3.86	3.68	26.48
	A	5.38	8.75	8.61	7.37	5.31	32.75
Pre. U1	S	4.67	7.92	8.20	4.50	4.42	29.72
	A	5.36	8.85	8.79	7.48	5.45	34.09
Pre. U2	S	4.59	7.92	7.92	6.03	4.77	30.31
	A	5.77	8.80	9.01	8.14	5.69	34.78

Sample S = Singaporean sample in 1986 survey
A = American norms as reported by Crites (1978)

TABLE 8 — PROFILE OF WORK ATTITUDES OF SINGAPOREAN STUDENTS

N = 324

Class Level	Work Attitude Variables					
	Decisiveness	Involvement	Independence	Orientation	Compromise	Attitude
Sec. 1	49.4	47.8	49.0	48.6	46.3	46.8
Sec. 2	47.9	48.8	47.6	47.5	49.4	46.8
Sec. 3	50.0	50.0	48.6	49.5	50.9	50.0
Sec. 4	49.4	49.9	50.7	49.8	47.9	49.8
Pre. U1	52.6	53.1	54.1	51.6	53.4	55.0
Pre. U2	52.2	53.1	52.7	55.6	56.0	55.9

of some American researchers who, by using either the cross-sectional design or the longitudinal design, have accumulated much evidence to suggest that work attitudes mature across age groups and within cohorts over time (Crites 1971; Adelstein & Webster, 1979; Healy, O'Shea & Crook, 1985). Secondly, one can also observe that individual age groups are all fairly consistent in their performance in the various subscales and no exceptionally high or low mean scores are recorded in any of the subscales. Compared to their American counterparts, the adolescent students in Singapore schools fare poorly in the areas of decisiveness, orientation and compromise. Compared with their peers in the same age bracket, however, they seem to be a rather homogeneous group. The third observation is that the increase in the total mean score is more clear-cut between Secondary 1 and Secondary 3 students and between Secondary 3 and Pre-University students. This seems to suggest that the increase in maturity is more distinct and observable over a two year period. In any case, as shown in Table 9, analysis of variance using

ANOVA procedures shows that there are significant age differences between the six class levels.

Sex Differences in Career Attitude Maturity

While research on age-related differences in work attitudes has yielded consistent findings, there are conflicting opinions and research data concerning the existence and the importance of sex differences in the maturity of work attitudes. Smith & Herr (1972) found that girls scored higher in career attitude maturity than boys in the same grade. Furthermore, with advancing grade level the mean scores for each sex increased but girls consistently scored higher than boys across the age groups. Crites (1965), on the other hand, found only a few differences between boys and girls in their self-reports of career attitude and concluded that gender may not be an important factor in the maturation of career attitudes of adolescents. To find out more about the Singapore situation, a breakdown of the standardized group means of the five Attitude Scale variables are presented in Table 10 for comparison between the male and female students.

Comparing the mean subscores of the boys and girls in the same class level, one can see a rather inconsistent picture with boys doing better in some areas and girls doing better in other areas. In the subscale, "Involvement", however, girls seem to fare better in some of the age groups (T-Test shows that three class levels have significant differences). Another interesting observation is that in the oldest age group, the pre-university 2 students who are at the threshold of either entering a tertiary institution or seeking employment, the girls

TABLE 9 — ATTITUDE SCALE MEAN DIFFERENCES BETWEEN CLASSES

N = 324

Attitude Variables	df	F Value	PROB
Decision	5	1.76	0.1202
Involvement	5	2.55	0.0276*
Independence	5	3.05	0.0107*
Orientation	5	4.03	0.0016*
Compromise	5	7.54	0.0001*
Attitude Total	5	9.09	0.0001*

SAS GLM/ANOVA, * p < 0.05

**TABLE 10 — COMPARISON OF ATTITUDE SCALE SUBSCORES BETWEEN BOYS AND GIRLS
BY CLASS LEVEL**

N = 324

Class / Sex		Work Attitude Variables					
		Decisivness	Involvement	Independence	Orientation	Compromise	Attitude
Sec. 1	M	50.2	49.5	48.1	51.0	45.5	47.5
	F	48.9	46.8	49.5	47.1	46.3	46.4
Sec. 2	M	48.3	46.2	45.1	48.2	50.3	46.0
	F	47.4	50.9	49.6	46.9	48.7	47.4
Sec. 3	M	53.8	45.1**	44.9	53.9**	51.3	51.3
	F	48.6	51.8	49.9	47.9	50.8	49.5
Sec. 4	M	50.3	49.5	51.2	52.7*	49.3	52.3
	F	49.0	50.1	50.5	48.5	47.2	48.6
Pre. U1	M	55.7	49.3	54.7	52.8	55.4	56.4
	F	58.6*	57.6**	53.3	50.1	51.1	53.3
Pre. U2	M	47.1	49.3	51.1	51.1	53.6	50.9
	F	56.5**	56.2*	54.0	59.4	58.1	60.3**

*** p < 0.001

** p < 0.01

* p < 0.05

consistently score higher than the boys in all five dimensions of the Attitude Scale (although T-Test shows significant differences in only 2 subscales). When the Attitude Scale is taken as a whole, however, T-Test procedures reveal that only the pre-u 2 students show significant sex differences in favour of the girls. Such a finding seems to suggest that sex differences in work attitude do exist in the older adolescents in that the girls show greater involvement in career planning and seem more definite about a career choice. It must be reiterated, however, that the findings across the sample do not warrant the conclusion that on the whole girls are more mature than boys in their work attitudes as some researchers have found (Smith & Herr, 1976; Pedro, 1982). In fact, a T-Test fails to show any significant differences between the mean scores of the 127 boys and 197 girls in the sample (T value = 0.3996 Prob = 0.6897).

Conclusion

Although this survey covers but a small sector of the student population in Singapore schools, some important empirical evidence has been gathered in the light of the increasing awareness of the contribution and benefits of career guidance in education.

The findings show that compared to their American counterparts, secondary school pupils in Singapore are less vocationally mature in the two vocational developmental tasks identified by Super (1963) as being characteristic of adolescent development; (a) crystallization of a vocational preference and (b) career exploration. Majority of the students surveyed are very vague about their career plans, let alone having a job preference. They spend little time and effort in career exploration. There is also a prevalent feeling among the students that they are receiving little help from home and school in this aspect of their development.

Nevertheless there is some evidence in this study to show that both the home and the school can contribute much to enhance the career maturity of adolescents. Students in the sample seem to have benefited from career guidance activities organized for them in the school, even though such activities were rather informal, being organized on an ad hoc basis. If the students could benefit from occasional and informal career guidance activities, how much more would they benefit from well-planned and systematic career guidance!

While the school can play a vital part in the career development of our students, the role of

the family can never be underrated. This study has found that parental involvement and availability of role models have considerable influence on the career development of adolescents. One implication for such a finding is that to be effective, career guidance programmes organized in the schools must attempt to involve the parents as well in the career planning and career exploration of our adolescent students.

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