CHAPTER 5

CONCLUSIONS

This study is carried out to identify the vocational interests of Lower Six Arts students and to compare their academic achievement in Arts and Science subjects among these students with different vocational interest. It also aims to examine the relationship between areas of educational choice and vocational interest. The subjects consist of 81 Lower Six students from a premier school in Klang, Selangor.

The SDS (Form E), a vocational interest instrument developed by Holland (1974) and translated by Amla (1984) is used together with a questionnaire to elicit information on the academic achievement and educational choice of the subjects.

The following conclusions can be drawn from this study.

I There are two clear dominant vocational interests found in this group of form six students. The Conventional interest is the most popular type of vocational interest followed closely by the Social interest.

II Students with vocational interest of the Social and Conventional type perform better in Arts subjects compared to Science subjects.

III A majority of students’ educational choice is consistent with their vocational interest.
5.1 The Vocational Interests of Form Six Arts Students

All the six vocational interests are represented in this group of students. The Conventional interest is most popular, followed closely by the Social interest. Next is the Enterprising, Artistic and Investigative interests in descending order. The least popular vocational interest among this group of students is Realistic.

The result of this study shows that the majority of Arts students are in the right stream of study. According to Holland, people with Conventional interest like to manipulate data in a systematic and organised way and possesses clerical, accounting and business skills. In relation to this, preferred subject areas will be Economics, Mathematics and Accounting. In fact, about 50% of this group of students are taking such combination of subjects for the STPM examination. Therefore, the vocational interest of these students is highly related to their field of study at sixth form level.

As for Social, Enterprising and Artistic interests, they too match the subjects that are being studied by this group of students. Besides Economics, Mathematics and Accounting, some of these students also study a combination of Geography, History, Business Studies and Art Education. This means that the students are studying a combination of subjects that are directly or closely related to their vocational interest. They know that it is much easier for them to follow subjects of their interest and thus increase their chances of achieving better grades.

Therefore, the appearance of Conventional, Social, Enterprising and Artistic interests among this group of students is highly expected. At sixth form level, students are matured enough to choose a combination of
subjects that interests them and which is related to their future educational choice and vocational aspirations.

However, this study also indicates that a small minority may not be in the right stream of study. From this group of students, 7.4% have vocational interests in the Realistic (2.5%) and Investigative (4.9%) fields respectively. This is unexpected of Arts students as they are usually considered to be lacking in analytical, technical and scientific skills. They are also usually not interested in working with machines or tools. One possible explanation is the presence of the subject Mathematics S (or Statistics) being studied by some of the Arts students at sixth form level. It is an elective subject usually taken by students who were formerly in the Science stream during their fifth form. Thus, they may still maintain their Realistic and Investigative interests.

5.2 Comparison between Different Vocational Interests and their Achievement in Arts and Science Subjects

Generally, it is found that the mean grades for Science subjects are better compared to Arts subjects irrespective of vocational interests. This is rather surprising as Arts students are expected to perform better in Arts subjects such as Languages and History compared to Science and Mathematics.

This result could be attributed to the government’s policy of encouraging more students to opt for the Science stream since 1993. Many steps have been taken to improve the academic performance in Science subjects at public examinations. One of the successful steps taken is the "Blitzkrieg" project also known as "Projek Gerak Gempur" which is carried out for all Science subjects and Mathematics at SPM
level. Students are given simple exercises to do in five minutes to motivate their interest in these subjects. The success of “Projek Gerak Gempur” has resulted in better performance in Science subjects at SPM level for the past three years since the project was implemented nationwide in all schools. Hence, it is not astonishing to find the Arts students also performing better in Science than Arts subjects.

Another contributing factor is due to the high percentage of students with Conventional interest. According to Holland’s theory, the Conventional type of students has preference and ability in the systematic manipulation of data. This could have resulted in higher mean grades for Mathematics among these Arts students.

The results of this study do support Holland’s theory that “interest scales are related to a person’s academic achievement.” It is found that students with Realistic and Investigative interests perform better in Science subjects because they have a preference for activities that “entail the observational, symbolic, systematic and creative investigation of physical, biological and cultural phenomena”. Therefore, the mean grades for Mathematics and Science are highest for these students compared to students of other vocational interest.

Students with Conventional, Enterprising, Social and Artistic interests clearly perform better in Arts subjects compared to Science subjects. According to Holland’s theory, these type of students will have interest in activities involving language, humanities (Artistic), working with others to inform, train and develop (Social) and attain certain objectives and profits (Enterprising) and manipulating data in a systematic, organised way (Conventional). Furthermore, these students
will have interpersonal, communication skills besides clerical, accounting and business skills. However, they lack technical and scientific skills. Thus, in relation to these interests, subjects most relevant will be Arts subjects and this explains the better performance in Arts subjects such as Malay Language and History as compared to Science and Mathematics.

5.3 Areas of Educational Choice and Vocational Interests

The results show that there is a strong relationship between future educational choice and vocational interest. This supports Holland's theory which says that behaviour is determined by an interaction between the vocational interest or personality and the environment. Our knowledge of vocational interests can be used to predict some of the outcomes of the personality and environment. Such outcomes will include choice of vocation, vocational achievement and educational choice. Therefore, according to Holland's theory, a person's vocational interest will determine the primary direction of educational choice. Example: a person with Conventional interest will tend to choose to further their education in a Conventional field.

The results of this study clearly supports Holland's theory because students of all types of vocational interest choose areas of educational choice that are congruent or highly consistent with their vocational interest. The most popular area of educational choice is Conventional since it is the most popular type of vocational interest among this group of students. In fact, a majority of these students are taking subjects such as Economics, Accounting and Mathematics. Naturally, this leads to a preference for areas of study that entail the explicit, ordered, systematic manipulation of data. This also explains the high percentage of students
with Conventional interest intending to further their studies in the Conventional field.

Likewise, students with Artistic and Enterprising interests also chose to further their studies in the Artistic and Enterprising fields respectively. A majority of Artistic students choose the Artistic field of study that entails the manipulation of physical, verbal or human materials to create art forms or products. This area of study will lead to an acquisition of artistic competencies such as language, art, music, drama or writing which is highly suitable for students with Artistic interest. As for Enterprising students, the most popular area of educational choice is Enterprising; an area of study that entails the manipulation of others to attain organisational goals or economic gain and which leads to an acquisition of leadership, interpersonal and persuasive competencies.

Although a majority of Social interest students did not choose the Social field of study that leads to an acquisition of human relations competencies such as interpersonal and educational competencies, they chose areas of study that are consistent with their Social interest such as Artistic, Enterprising and Conventional. According to Holland’s hexagonal model, Artistic and Enterprising fields of study are highly consistent with the Social interest whereas Conventional is middle in level of consistency. The presence of these preferred areas of study besides the Social field may be due to the combination of subjects being studied by the Social group of students. Besides Social subjects such as History and Geography, some of these students also study Art, Accounting, Business Studies and Economics. This explains the interest in related fields of study.
The same reasoning can be applied to Investigative students where half of these students choose the Artistic field of study. Holland's theory states that the Artistic field of study is highly consistent with Investigative interest. This is because the Investigative type of students prefer activities that entail the observational, symbolic and creative investigation of physical and cultural phenomena which are closely related to the Artistic field of study in terms of creativity, symbolism and culture. In relation to the combination of subjects, it is highly possible these Investigative students have opted to take subjects such as Mathematics S (Statistics) and Art at STPM level. This may lead them to careers in graphic designing and architecture.

As for students whose educational choice is inconsistent with their vocational interest, it can be said that they are still unsure of their interests and abilities and in turn, their vocational aspirations. This is especially true for a minority of these students whose vocational interest is of the Realistic type. None of them choose the Realistic field of study but instead preferred the Social and Conventional field of study. In fact, it is rather surprising to find Realistic type of students in the Arts stream since the Realistic person prefer activities that entail the explicit, ordered or systematic manipulation of objects, tools, machines and in turn, the acquisition of mechanical, electrical and technical competence. Hence, according to Holland's theory, it is highly impossible for a Realistic student to choose an area of study in the Social field. Their educational choice may be due to the Arts subjects they are studying presently but their interest is in another field. It can be said that this small group of students has been placed in the wrong stream of study. It may not be
due to their mistake in opting for the wrong stream but a result of many factors such as parental pressure, peer pressure and future prospects in the working world.

5.4 Implications

The results of this study show that all six vocational interests in Holland’s theory can be found in this group of form six students. This includes the Realistic and Investigative types whom Holland hypothesised to have preference for activities that are technical, mechanical and scientific but having an aversion to educational, persuasive, social and repetitive activities. This study also finds that students of different vocational interest perform differently in Arts and Science subjects. Those with vocational interests such as Conventional, Social, Artistic and Enterprising perform better in Arts subjects such as Malay Language and History. However, students whose vocational interests are Realistic and Investigative scored better in Science subjects such as Mathematics and Science. It is also found that there is a strong relationship between area of educational choice and vocational interest. This implies that many of these students would like to pursue further education in fields that relate directly to their vocational interest.

Many implications can be made from the results of this study. Firstly, a majority of these students are in the right stream and taking a combination of the subjects that interest them. Their educational choice is also consistent with their vocational interest except for a small minority. This is hardly surprising as these students have reached a certain level of maturity at the age of 18 years to know their interests well. They know the subjects they should take to achieve good grades
based on their interest and ability besides fulfilling their educational and vocational aspirations.

For this group of students, knowledge of their vocational interest scores helps to reassure them that they are going in the right direction or doing the right thing. Strong (1955) states that interest tests are useful in this period that is, at the age of 18 years in that they provide students with additional information about themselves. Furthermore, vocational interests give these students valuable information that could be used to explore occupational alternatives.

Holland's theory of vocational choice implies that interest inventories such as the SDS are one means of identifying those educational and vocational areas in which an individual's aptitudes and abilities may be developed through academic training. Therefore, career counsellors and vocational educators can make more systematic use of interest measures as they work with sixth form students who face choices regarding courses of study at higher institutions of learning. If interpretations of interest scores can be keyed to clusters of locally available courses of study, these students could easily identify programmes in which they may experience satisfaction and success.

Vocational interest scores are helpful not only to those who don't know what they should do but also to those who believe they are doing the right thing. An interest score is a device used for the purpose of acquainting the student with himself. It raises the student's level of self-awareness and can predict future academic and job performance.

Vocational interest is the basis for career exploration and planning as the world of work becomes increasingly sophisticated. Counsellors can
help these students to explore and consider occupations that might be overlooked. In fact, the first step in career decision-making is the recognition of identified abilities that are associated with occupations within the Holland types. Identified interests and abilities maybe related to a number of careers and types, making it necessary to gather more information for specific job requirements. Of course, effective career guidance and counselling should not only be geared towards making best use of an individual's abilities and interest but coupled with the projected manpower needs of a particular profession or industry.

In Malaysia, school leavers including sixth formers often find it difficult to decide what career to choose or what course to sign up for in a university. Thus, taking tests such as the SDS helps students find out their aptitude and vocational interest levels so that they can make the right choice. With normal guidance in school and taking tests as well, reliability is greatly enhanced so that people are able to make good employment and educational decisions. For sixth formers, the SDS and other interest inventories will help to narrow down their options and the areas they are particularly interested in, but more importantly, it will give hard information about where their abilities belong in relation to their career and educational opportunities. Hence, mistakes made by students in the selection of courses will be minimised.

It is obvious that the SDS is designed to furnish the individual with a model of systematic career exploration. Although the SDS can be self-interpreted, the individual should be stimulated to seek further career guidance. Many students will want to clarify their interests with a counsellor who can provide additional information for career decision
making. The SDS provides results that can be easily incorporated into group and individual career counselling programmes. However, students often need assistance in using The Occupations Finder (Holland, 1987).

Holland is to be commended for encouraging people to consider their vocational interests and in turn, their careers by using a straightforward format. The popularity of the SDS demonstrates the need for this type of format.

Recently, two other tests designed to help young people especially school leavers make career decisions were made available in Malaysia through a joint venture between JM Educational Counselling Centre Sdn Bhd and The Psychological Corporation, an American commercial test publisher (The New Straits Times, October 29, 1998). They are the Differential Aptitude Test (DAT) and the Career Interest Inventory (CII). The DAT measures abilities in areas such as verbal reasoning, relevant to occupations such as business, education, journalism and science; numerical reasoning, mechanical reasoning, which are relevant to careers in architecture, art, clothing design, carpentry and dentistry. The CII is a career-guidance instrument that provides information about the goals of adults as well as their interest in a variety of subjects and fields of work. It measures what a person likes or dislikes in relation to work. It examines preferences for working in a particular field and gives the measure of satisfaction that a person would be expected to find in different areas.

With tests such as the SDS, DAT and CII, students will have no difficulty choosing suitable courses of study and making the right career decisions based on their abilities and vocational interest.
5.5 Recommendations

Although this study is limited by its small sample, the results provide indications of the effectiveness and usefulness of the SDS with form six students. A larger sample consisting of students from all streams and forms will provide more convincing evidence of the utility of the SDS. Bearing in mind that the present sample consisted of only form six Arts students, larger and more diverse samples will help to determine whether the present findings can be generalised to other Malaysian students.

To examine the stability of the students’ vocational interest and area of educational choice, another study can be conducted on these students after the STPM results are released. It will make an interesting study to see if their vocational interests and educational choices remain the same after two years.

Factors that influence vocational interest and educational choice can be examined or investigated separately. Questions for gleaning such information can be included in the questionnaire. Environmental and socio-economic factors such as parents’ occupations, school curriculum and cultural factors can be considered.

All three letters should be used in the analysis of data instead of using only the first letter in the three-letter code. This will give a more accurate measurement of the students’ vocational interest and educational choices.

With additional studies as recommended, perhaps the findings will be more meaningful and useful.
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Cik,
Ujian Minat Kerjaya - SDS

Menunjuk kepada perkara di atas, ingin dimaklumkan bahawa anda dibenarkan menggunakan ujian minat tersebut bagi kertas projek yang bertajuk:

"Measuring Vocational Interests of Form Six Students in Klang High School Using Holland's Theory"

2. Ujian tersebut hanya boleh digunakan untuk tujuan penyelidikan yang tersebut di atas dan tidak boleh digunakan untuk tujuan lain.

Sekian untuk makluman dan tindakan selanjutnya. Terima kasih.

Yang benar,

(Prof. Madiya Dr. Amla bin Hj. Mohd. Salleh)