



UNIVERSITI PUTRA MALAYSIA

**THE COMPATIBILITY OF TRADE STUDENTS' PERSONALITY
AND THEIR RESPECTIVE TRAINING ENVIRONMENT:
AN APPLICATION OF HOLLAND'S THEORY.**

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By

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LIST OF ABBREVIATIONS

A	-	Artistic
ABM	-	Amalan Bengkel & Memesin (Fitting and Machining)
AU	-	Automotif (Motor Mechanic)
BB	-	Binaan Bangunan (Building Construction)
C	-	Conventional
CI	-	Compatibility Index
E	-	Enterprising
EK	-	Elektrik (Electrical Installation & Maintenance)
EN	-	Elektronik (Radio, Television & Electronic servicing)
KFL	-	Kimpalan & Fabrikasi Logam (Sheetmetal Work & Welding)
MLVK	-	Majlis Latihan Vokasional Kebangsaan (National Vocational Training Board)
PPU	-	Pendinginan & Penyamanan Udara (Air-conditioning & Refrigeration)
R	-	Realistic
S	-	Social
SMVKP	-	Sekolah Menengah Vokasional Kuala Pilah
SMVPD	-	Sekolah Menengah Vokasional Port Dickson
SMVS	-	Sekolah Menengah Vokasional Seremban
SRP	-	Sijil Rendah Pelajaran
VPI	-	Vocational Preference Inventory



Abstract of thesis presented to the Senate of Universiti Pertanian Malaysia in partial fulfilment of the requirements for the Degree of Master of Science.

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The research was stimulated by a phenomenon among the trade students whose 'output' had not been commensurating with the high 'input' on them. An important influencing factor was the selection system. The research study was carried out in three vocational schools in Negeri Sembilan to study the compatibility of the trade students' personality and their respective trade training environment. Compatibility had been treated as the indicator for the effectiveness of the selection system. A total of 248 Form 5 students from seven trade courses were involved in this study.

The data were collected using a questionnaire with the Vocational Preference Inventory (VPI) as its main component. The VPI provided the personality scores of the subjects. Whereas The Occupational Classification provided the environmental code for the occupation most representative of the trade.



Statistical tools employed in analyzing the data were the t-test, Kendall's Coefficient of Concordance and Chi-square. The findings of the research study were: (1) realistic personality type was well differentiated with the other personality types except the enterprising personality type; (2) enterprising personality type was the most dominant personality type among the students followed by realistic personality type; (3) the students were incompatible with their trade where their overall mean Compatibility Index was 3.80; (4) there was no significant difference in compatibility between the SRP passers and the SRP failures.

It was deduced from the findings that there was a need to improve the effectiveness of the selection system. Although the findings were not generalizable of the trade student population in Malaysia, stringent measures were taken to ensure the findings could serve as valid indicators. Several recommendations and implications for future research were also provided.



Abstrak tesis yang dikemukakan kepada Senat Universiti Pertanian Malaysia sebagai memenuhi sebahagian daripada keperluan untuk Ijazah Master Sains.

**KESERASIAN PERSONALITI PELAJAR-PELAJAR
KETUKANGAN DENGAN PERSEKITARAN BIDANG LATIHAN
MASING-MASING: SATU APLIKASI TEORI HOLLAND.**

oleh

Haslee Sharil Lim Abdullah

September 1992

Pengerusi: Othman Mohamed, Ph.D.

Fakulti: Pengajian Pendidikan

Fenomena 'output' pelajar-pelajar ketukangan yang tidak setimpal dengan 'input' yang tinggi ke atas mereka telah mendorong kajian ini dijalankan. Sistem pemilihan pelajar merupakan satu faktor penting yang mencetuskan fenomena ini. Kajian ini telah dijalankan di tiga buah sekolah menengah vokasional di Negeri Sembilan untuk meninjau keselarasan personaliti pelajar-pelajar ketukangan dengan persekitaran bidang latihan masing-masing. Keselarasan itu dianggap sebagai satu petunjuk keberkesanan sistem pemilihan pelajar yang sedang diamalkan. Sebanyak 248 orang pelajar tingkatan 5 dari tujuh bidang kemahiran terlibat dalam kajian ini. Data kajian telah dikumpul melalui satu set soal-selidik yang kandungan utamanya adalah Inventori Pemilihan Kerjaya (IPK). IPK menyediakan markat personaliti para subjek. Sementara Klasifikasi Pekerjaan membekalkan kod persekitaran pekerjaan yang paling mewakili sesuatu bidang latihan.

Alat-alat statistik untuk penganalisan data adalah ujian-t, Kendall's Coefficient of Concordance, dan khi-kuasadua. Hasil dapatan kajian adalah: (1) Personaliti realistik dapat dibezakan daripada personaliti-personaliti lain kecuali 'enterprising'; (2) 'Enterprising' adalah personaliti yang paling dominan diikuti oleh personaliti realistik; (3) Personaliti para pelajar tidak serasi dengan persekitaran bidang latihannya di mana min Indeks Keserasian adalah 3.80; (4) Tiada perbezaan keserasian di antara pelajar-pelajar yang lulus SRP dengan yang gagal. Rumusan yang dicapai adalah bahawa keberkesanan sistem pemilihan pelajar perlu dipertingkatkan. Sungguhpun sampel kajian ini tidak mewakili populasi pelajar ketukangan di Malaysia, keesahan kajian ini membolehkan dapatan-dapatannya berfungsi sebagai petunjuk keberkesanan sistem pemilihan yang diamalkan. Beberapa cadangan serta implikasi untuk kajian akan datang telah dikemukakan.



CHAPTER I

INTRODUCTION

The rapid industrialization in Malaysia and the resultant opening up of new jobs, necessitate an individual to plan carefully for a career. Here, the educational institutions have to consolidate and foster efforts in maximizing the students' developmental potential. Failure to do so by both parties would be tantamount to jeopardizing Malaysia's future development.

Thus, it is essential to systematically plan and implement the development of student potentials. Every student, as reiterated by the Education Minister of Malaysia at the Asia-Pacific Conference on Student Affairs on May 15 to 17 1990 at Hyatt Saujana Hotel, Subang, Selangor Darul Ehsan, is an essential investment to the nation. The educational institutions can no longer remain complacent and leave human resource development to chance.

However, to help individuals plan suitable careers, or to help them in the choice of subjects and educational planning is not as simple as it appears to be. This has been attested by Gothard (1985) who conceived vocational guidance as the organization of schoolwork to help students to discover their own capacities, aptitudes and interests, and also to learn about the character and conditions of occupational life. This will eventually lead the students to arrive at an intelligent vocational decision.

The aim of vocational guidance is to help people choose work in which they will be reasonably contented and successful within the limits of



their abilities (Vaughan, 1970). In other words, vocational guidance is aimed at helping people achieve vocational happiness which will come about when their interest, aptitudes and personality are consistent with their work environment (Holland, 1973). Once that is achieved, they will find their life absorbing and fulfilling by their work, in this case, their vocation. Vocational counselling has a contributory role in a nation's human resource development (Amir Awang, 1990). Human resource development has been defined as programmes and activities that positively affect the development of the individual and the productivity and profit of the organization. Counsellors have been able to develop and implement the programmes and activities and also determine the programme effectiveness in terms of the individual, organizational and even national needs (Smith, 1988).

Besides being able to minimize unnecessary time and financial wastage, vocational counselling is able to maximize productivity and enhance mental health of youth. This will be achieved if individuals had been guided to arrive at a socio-psychologically compatible vocation. They will then develop a capacity to achieve gratification from work, to feel happy and contented, and to gain satisfaction and enjoyment from interpersonal relationships in their work environment.

Background of the Study

The rapid development in the industrial sectors has resulted in a great demand for vocational education. The Malaysian Ministry of Education has been responding positively to this demand by constructing more vocational schools in the country. To date, there are 46 vocational

schools throughout the country (Bahagian Pendidikan Teknik dan Vokasional, 1990). According to the Technical and Vocational Education Division, the Malaysian Ministry of Education aspires to have a vocational school in every district in the country.

Correspondingly, there has been a trend among students, after their Sijil Rendah Pelajaran (SRP), to choose vocational education as an option in continuing their studies. This is evident in the increasing number of applicants every year, though the actual data for the past five years were not disclosed by the Technical and Vocational Education Division. Nevertheless, the trend is in consonance with the Malaysian Ministry of Education's aspiration of churning out a huge workforce adept at skills required by the industrial sector in the national pursuit of an industrialized Malaysia by the year 2020.

During a visit to the Perlis State Education Department on 27th August 1991, the Director General of Education highlighted the ministry's effort to tap the students' potentials in the various trades. The ministry is attempting to provide more opportunities in vocational education, though its cost is exorbitant. The Education Ministry's effort is laudable. However, it should also take note of the effectiveness of the present system. The students' success rate could be the main yardstick.

Therefore, it is imperative for the ministry to have a highly effective selection system of emplacing students into the various fields. An effective selection system is one that is able to screen out incompatible candidates and admit those who are compatible.

Any manpower development programme, especially on a national basis, will consider one importance element - that of matching the person with the job. Holland (1985) stressed the importance of this element in his theory. Briefly, the theory views the environment as an extension of the predominant classification of individuals within the environment. The premise for classification of individuals is that people seek environments that are compatible with their personality type and will avoid those that are disagreeable. In other words, people with a certain type of personality will seek and flourish in a certain type of environment that has been created by congregation of people of their type. A person who is psychologically in step with his reference group and, consequently, the environment, is more likely to succeed with a minimal amount of stress than individuals whose personality is incompatible with the reference group (Johnson and Moore, 1973).

Within Holland's (1985) framework, individuals are categorised into six personality types called Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The more closely a person resembles a particular type, the more likely he is to exhibit the personal traits and behaviours associated with that type.

Likewise, Holland (1985) characterized the environments in which people live also by their resemblance to six model environments: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C).

After considerable research in testing and revising a classification of occupations, Holland (1966) devised The Occupational Classification which assigned a 3-letter code, such as R-I-E or C-R-S, to every occupation

based on the 6 personality types and 72 subtypes. The 3-letter code describes an occupation's characteristics. Taken in order, the 3 letters of the code indicate the primary, secondary, and tertiary orientation of a job. For example, machinist, automobile mechanic, electronic technician, and air-conditioning mechanic are assigned as R-I-E. Thus, these occupations are primarily a realistic occupation, secondly investigative, and thirdly enterprising.

At present, there are 17 courses available in Malaysian vocational schools. Out of these, 7 are trade courses, 5 are home economics courses, 3 are agriculture courses, and the remaining 2 are commerce courses. Each of these groups of courses is suited for students with certain personality traits. In other words, every student possesses certain personality traits that makes him compatible to a certain course. Some may have a personality that is compatible to trade courses. Others may be compatible to either home economics, commerce, or agriculture courses.

Trade courses generally tend to appeal to students who are physically strong, aggressive, unsociable, lacking in verbal skills, and have good motor coordination. Holland (1973) categorizes these traits under the realistic personality type. Also, Holland (1973) further elaborates that people with realistic personality prefer activities that entail explicit, ordered, and systematic manipulation of objects, tools, machines, and animals. Thus, there is an implication that students who do not resemble the realistic personality type will not develop well in trade courses due to the personality-trade environment incompatibility.

The personality-vocation compatibility has also been emphasized in other theories of career development. Super's Developmental theory for instance, considers self-concept as the driving force which establishes a career pattern one will follow throughout life (Super, 1957). In other words, individuals strive to implement their self-concept by choosing to enter careers which will provide the most efficient means of self-expressions (Zunker, 1981).

Also, Roe's personality theory of career choice provides explanations on the relationship between personality and vocational behaviour. One major principle in the theory is that, there are distinctive personality characteristics of people in different vocations (Osipow, 1983).

Thus, it is seen that individuals fall under various personality types and each type is compatible to a certain field of occupation. Consequently, this idea may be related with the selection system of emplacing students in the various trades under the vocational education system. The students' decision to choose vocational education may be right or may be wrong depending on the guidance they received before making the decision. Whatever the students' decision may be, an effective selection system should be able to identify and discriminate compatible applicants from the incompatible. Such a system will only take in the compatible and redirect or turn away the incompatible. Therefore, ensuring a high degree of correct student selection into the various courses. The schools' organizational functioning in realizing the students' potentials will be utilized to the maximum. Subsequently, the output will be increased.

On the other hand, a selection system that fails to discriminate the applicants is considered as ineffective. There may be cases of compatible

applicants being turned away and those who are incompatible being admitted. Such a selection system would tend to bring an adverse effect on the school organizational functioning, especially when the incompatible students fail to adjust and adapt themselves to the training environment. Consequently, the adverse situation would breed intrapersonal and interpersonal problems which will eventually take its toll on the school output. A model representation of each of the two selection systems are shown in Figures 1 and 2.

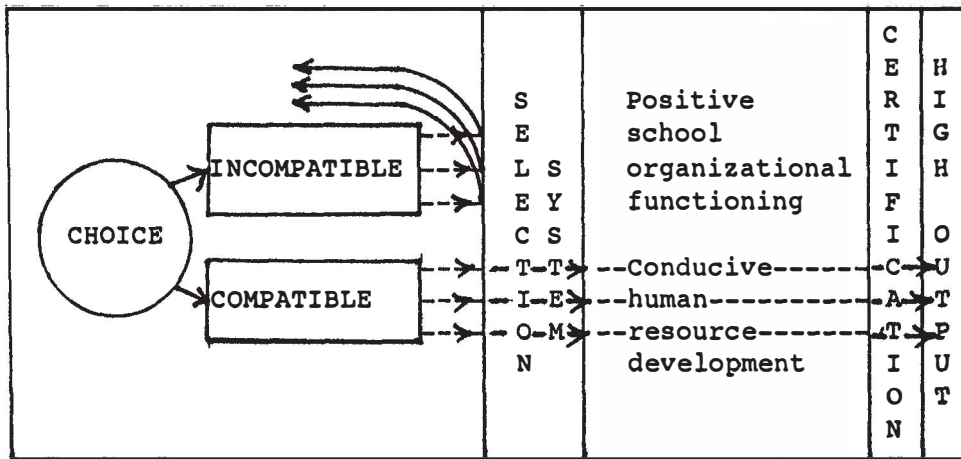


Figure 1. A Model of Effective Selection System and Its Predicted Outcome

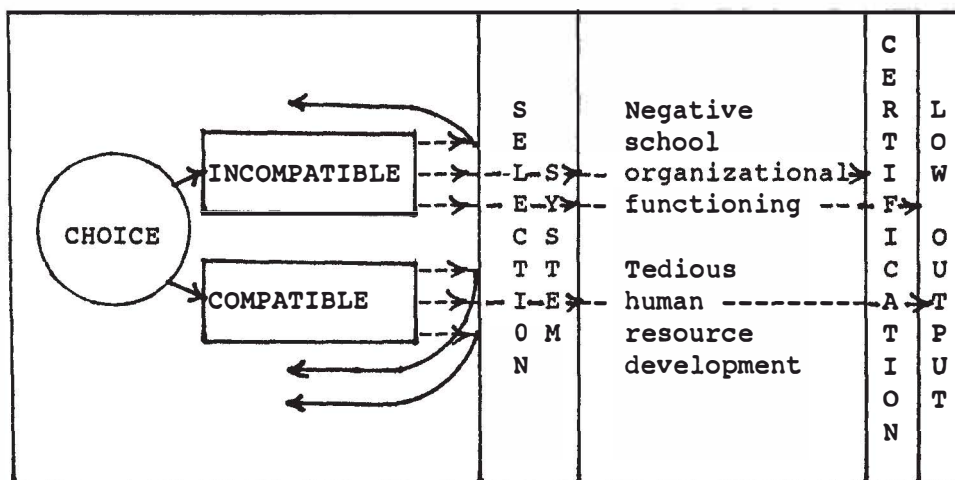


Figure 2. A Model of Ineffective Selection System and Its Predicted Consequences

At present, students who wish to pursue vocational education need to apply for emplacement. The selection system seems to use the academic performance at the Sijil Rendah Pelajaran (SRP) level as the main criterion. This is deduced from the information required in the application form. It is asserted here that it is not wrong in using academic performance as a criterion, but is it adequate or effective enough in ensuring only compatible candidates are admitted? This has provided the stimulus for this research study.

Statement of the Problem

Central to Holland's theory is the concept that one chooses a career to satisfy one's personality orientation or type. When a person has developed a strong and dominant personality type, the person is likely to achieve greater satisfaction in a corresponding occupational environment (Zunker, 1981). In other words, a person who has a dominant realistic personality will seek for a career in the corresponding realistic environment enroute to self-fulfilment. Likewise for the other personality types. An effective selection system would be able to ensure such compatibility.

Based on Holland's Occupational Classification, the students' trade courses are categorized under the realistic occupations (Holland, 1985). This research study will examine whether the trade students, in their realistic trade training environment, exhibit characteristics resembling the realistic personality type significantly, as compared with the other personality types. The relationship between the trade students' personality types and their trade training environment would provide a good indicator to the effectiveness of the selection system.

In order to get a better indicator, this research study attempts to study the compatibility between trade students' personality pattern and their respective trade environmental pattern based on Holland's occupational three-point code. The Occupational Classification (Holland, 1985) assigns a R-I-E code for machinist, automobile mechanic, electronic technician, and air-conditioning technician. These occupations are representative of the Amalan Bengkel dan Memesin (ABM), Automotif (AU), Elektronik (EK), and Pendinginan dan Penyejukan Udara (PPU) trade respectively. Similarly, electrician and welder which are representative of the Elektrik (EK) and Kimpalan dan Fabrikasi Logam (KFL) trade respectively are assigned a R-I-S code. The occupations representative of the Binaan Bangunan (BB) trade are bricklayer, plasterer, and tile setter. These occupations are assigned a R-C-S code.

Also, the research study will attempt to test the belief that trade courses are suited for academically low achievers. In this respect, this research study hopes to find out whether the student-trade compatibility is differentiated based on the trade students' Sijil Rendah Pelajaran (SRP) results.

Objectives of the Study

The compatibility between trade students' personality and their respective trade training environment is taken as the indicator of the effectiveness of the selection system. The prime motivation of this research study to attain the following objectives:

1. To examine whether realistic personality is significantly differentiated from the other five personality types among the trade students in Negeri Sembilan vocational schools.
2. To examine whether realistic personality type is the most dominant among the six personality types among the trade students in Negeri Sembilan vocational schools.
3. To investigate whether there is a significant compatibility between trade students' personality pattern and Holland's three-point code for each of their trades respectively.
4. To study whether there is a significant difference in personality-environment compatibility between SRP passers and SRP failures among the trade students.

Hypotheses

Young people need help in finding out what are their real interest and capabilities. Also, they need help in making a realistic, as opposed to fanciful, choice of vocation which will enhance their happiness and satisfaction.

Without the benefit of data on the effectiveness of the vocational guidance services in Malaysian secondary schools, it is assumed that students choose vocational education ambiguously. In addition, the present system of selection seems to be based chiefly on academic performance. This creates doubts on the compatibility of the students with their respective trade training programme. Thus, it is hypothesized that:

1. There is no significant difference on the Vocational Preference Inventory score between realistic personality type and the investigative personality type among the trade students.
2. There is no significant difference on the Vocational Preference Inventory score between realistic personality type and the artistic personality type among the trade students.
3. There is no significant difference on the Vocational Preference Inventory score between realistic personality type and social personality type among the trade students.
4. There is no significant difference on the Vocational Preference Inventory score between realistic personality type and enterprising personality type among the trade students.
5. There is no significant difference on the Vocational Preference Inventory score between realistic personality type and conventional personality type among the trade students.
6. There is no significant compatibility between the Amalan Bengkel dan Memesin (ABM) students' personality pattern and the Realistic-Investigative-Enterprising (R-I-E) environmental pattern.
7. There is no significant compatibility between the Automotif (AU) students' personality pattern and the Realistic-Investigative-Enterprising (R-I-E) environmental pattern.