DETERMINATION ON THE SELECTION OF SCIENCE AND MATHEMATICS BY STUDENTS

A Master Project submitted to the Graduate School in partial fulfillment of the requirements for the Degree of Master Of Science (Management), Universiti Utara Malaysia

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ABSTRAK

Tujuan penyelidikan ini adalah untuk melihat faktor-faktor yang menentukan pemilihan mata pelajaran sains dan matematik dalam tingkatan 4 sekolah menengah. Seramai 302 orang pelajar di lima buah sekolah menengah di kawasan Seberang Perai Selatan telah dipilih sebagai respondent dalam kajian ini. Antara faktor-faktor yang diujikan adalah sikap, kecenderungan belajar, dan pemilihan kerjaya masa hadapan. Kajian ini menggunakan kaedah tinjauan. Instrument kajian adalah berdasarkan soal selidik yang dibuat oleh Molly N.N.Lee (1996).

Keputusan penyelidikan ini menunjukkan bahawa : (1) terdapat hubungan yang positif dan signifikan antara keputusan peperiksaan PMR dan pemilihan mata pelajaran sains dan matematik di tingkatan 4; (2) terdapat perhubungan yang positif dan signifikan di antara sikap pelajar, pemilihan mata pelajaran matematik dan sains di tingkatan 4; (3) terdapat perhubungan yang positif dan signifikan antara pemilihan kerjaya, pemilihan mata pelajaran sains dan matematik di tingkatan 4; (4) terdapat perhubungan yang positif dan signifikan antara minat pelajar, pemilihan mata pelajaran sains dan matematik. Bagaimanapun, tiada perhubungan di antara jantina. bangsa, dan pemilihan mata pelajaran sains dan matematik. Kajian ini mendapati tiada perhubungan signifikan antara keputusan peperiksaan PMR dengan jantina dan bangsa.

ABSTRACT

The purpose of this study was to determine the selection of science and mathematics subjects by the form four students. A total of 302 students from five schools in the Southern Province of Wellesley were chosen as respondents in this study. Among the factors investigated were attitude, interest, perception and attitudes towards career. Survey research method was employed and the instrument used was adapted from the questionnaires used by Molly N.N. Lee in 1996.

The result of the survey indicated that: (1) there is a positive and significant relationship between students' examination results in PMR and the selection of science and mathematics subjects in form 4, (2) there is a positive and significant relationship between attitude of students and selection of science and mathematics subjects. (3) There is a positive and sign&cant relationship between perception towards career opportunity and the selection of science and mathematics subjects in form 4. However, there is no significant relationship between gender, race, and the selection of science and mathematics subjects. This study also discovered that there is no significant relationship between PMR examination results and race or gender.

DEDICATION

The writer dedicates this study to his wife Cheah Poh Hoon, his children Vivian Tan Yi Wei, and Tan Jiong Jian, who make tremendous sacrifices and contributions which enable him to pursue his educational goals.

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CHAPTER ONE

Introduction

The development of science and technology have been so rapid in recent years and their applications for humanity so profound that it is not surprising that there have been many corresponding changes in education. Many, though by no means all, of the most striking changes date from the mid-1950s. when curriculum projects were established in many parts of the world to bring science courses up to date. One of the reasons is to become an industrialized nation.

In other developed countries, they include both a concern to train specialized manpower to meet national need s, and the realization that the general public must have some scientific knowledge "scientific literacy', if they are to live in harmony with their social and material environment.

Wit hin the same period, many new n&ions achieved independence. In their quest for modernization they rapidly introduces up-to-date science curricula, initially imported from overseas, but later more reflective of indigenous needs and value (International Journal of Education Management, 1990). The United Nations Conference on Science and Technology (UNCTYSTD), in 1979 drew some guidelines concerning primary, secondary,

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