



Faculty of Cognitive Sciences and Human Development

**THE RELATIONSHIP BETWEEN PERSONALITY-  
ENVIRONMENT FIT FACTOR AND ACADEMIC  
ACHIEVEMENT ON MALAYSIAN UNIVERSITY COGNITIVE  
SCIENCES STUDENTS**

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**THE RELATIONSHIP BETWEEN PERSONALITY-ENVIRONMENT FIT  
FACTOR AND ACADEMIC ACHIEVEMENT ON MALAYSIAN  
UNIVERSITY COGNITIVE SCIENCES STUDENTS**

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This project is submitted in partial fulfilment of the requirements for a  
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## Statement of Originality

The work described in this Final Year Project, entitled  
**“The Relationship Between Personality-Environment Fit Factor  
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is to the best of the author’s knowledge that of the author except  
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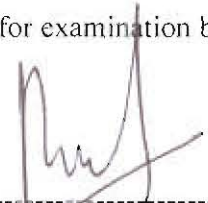
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## ABSTRACT

### THE RELATIONSHIP OF PERSONALITY-ENVIRONMENT (P-E) FIT FACTOR AND ACADEMIC ACHIEVEMENT ON MALAYSIAN UNIVERSITY COGNITIVE SCIENCES STUDENTS

KONG WAITENG

This research is conducted to study the issue of placement of Cognitive Sciences students in a Public Higher Education Institute regarding the P-E fit and other factors (background of stream of study, interest, student's preference, and entering GP) with the academic achievement. Respondents in this research are Cognitive Sciences student in a university range from first year to final year ( $n=70$ , male =10, female =60). Holland Personality-Environment (P-E) fit factor is the backbone of this research. Previous researches suggested P-E fit contribute to one's achievement and satisfaction. In this research, other factors (student's preference, and entering GP) were tested too. Quantitative method is employed in order to calculate the correlation of predictor (factors) to academic achievement (criterion). Findings showed there are no significant correlation between P-E fit factor and academic achievement for both Western context ( $r=-.156$ ,  $p > .05$ ) and Malaysia context ( $r=-.152$ ,  $p > .05$ ). Findings showed only entering GP has significant correlation with academic achievement ( $r= .257$ ,  $p < .05$ ). Therefore, only the fourth hypothesis (There is no significant correlation between entering GP with the academic achievement for Cognitive Sciences in a Public Higher Education Institute in Malaysia) was rejected and supported by previous researcher. Majority of the findings (P-E fit factor, and student's preference) were contradicting with previous researchers. Addition researches need to be carried out in order to collect more data for this sample to the similar issue. This research can be duplicated in conjunction to other potential factors that might correlate with academic achievement of Cognitive Sciences student.

## ABSTRAK

### HUBUNGAN ANTARA FAKTOR PEMADANAN PERSONALITI- PERSEKITARAN DENGAN PENCAPAIAN AKADEMIK PADA PELAJAR SAINS KOGNITIF DI UNIVERSITI AWAM MALAYSIA

KONG WAI TENG

Kajian ini dijalankan untuk mengkaji isu penempatan pelajar Sains Kognitif mengenai faktor pemandaan personaliti-persekitaran (P-E) dan faktor-faktor lain (latarbelakang aliran pelajar, minat, kecenderungan pelajar, dan GP kemasukan universiti) dengan pencapaian akademik di sebuah institusi pengajian tinggi umum. Responden kajian ini adalah pelajar Sains Kognitif yang terdiri daripada pelajar tahun satu hingga tahun tamat pengajian di sebuah universiti ( $n=70$ , lelaki =10, perempuan =60). Faktor pepadanan P-E Holland merupakan tulang belakang untuk kajian ini. Kajian-kajian lepas mencadangkan bahawa faktor pepadanan P-E menyumbang kepada kejayaan dan kepuasan seseorang. Dalam kajian ini, faktor-faktor lain (kecenderungan pelajar, dan GP kemasukan universiti) turut diuji. Cara kuantitatif digunakan untuk mengira korelasi antara predictor (faktor-faktor) dengan criterion (pencapaian akademik). Dapatan kajian menunjukkan tidak ada korelasi yang signifikan antara faktor pepadanan P-E dengan pencapaian akademik bagi kedua-dua konteks Barat ( $r=-.156$ ,  $p > .05$ ) dan Malaysia ( $r=-.152$ ,  $p > .05$ ). Dapatan kajian menunjukkan satu-satunya predictor yang mempunyai korelasi yang signifikan dengan pencapaian akademik ialah GP kemasukan universiti ( $r= .257$ ,  $p < .05$ ). Oleh itu, hanya terdapat hipotesis yang keempat (*There is no significant correlation between entering GP with the academic achievement for Cognitive Sciences in a Public Higher Education Institute in Malaysia*) ditolak dan disokong oleh dapatan kajian lepas. Kebanyakan dapatan kajian ini (faktor pepadanan P-E, dan kegemaran pelajar) adalah bercanggahan dengan penyelidikan-penyelidik yang lepas. Penambahan kajian hendaklah dijalankan untuk mengumpul lebih data berhubung sample ini bagi isu yang sama. Kaji ini boleh diperbanyakkan bersama-sama dengan faktor-faktor lain yang berpotensi mempunyai korelasi dengan pencapaian akademik bagi pelajar Sains Kognitif.



## **CHAPTER 1**

### **INTRODUCTION**

#### **1.0 Introduction**

This chapter is exclusively discussed on the background, problem statement, objectives, and conceptual framework of this study. The objectives and research questions are included. The significance of the study and definition of terms will be clarified in this chapter too.

Sharf (2002) claimed that one's personality gives impact to the level of satisfaction and performance. Personality is a term comprises one's attitude,

affection, and thought toward a scenario (Murray as cited in Drummond, 2000). Personality serves as a source of motivation and influence the way an individual react to the environment. Naturally, people feel uncomfortable in the environment that contradicts with their interest, emotion, and thought. Therefore, it is important for a student to study under environment that fit their personality.

Academic achievement is the typical measurement scale of performance in education arena. A great emphasis on academic achievement could be observed in ancient China. China started to concern on the academic by introducing the imperial examination in order to select those performed well to become the minister in China. Those who want to be successful have to obtain outstanding result in the imperial examination. To be an honour student, someone have to become the Number One Scholar (title conferred on the one who came first in the highest imperial examination). Therefore, academic achievement serves as an identity for students. Achieved excellence result becomes the main task of student in education arena.

### **1.1 Purpose of the Study**

To study the issue of placement of Cognitive Sciences students in a Public Higher Education Institute regarding the relationship of P-E fit and other factors (background of stream of study, interest, student's preference, and entering GP) with academic achievement.

### **1.2 Background of the Study**

Cognitive Sciences is one of the programs offered by University Malaysia Sarawak (UNIMAS) under the Faculty of Cognitive Sciences and Human Development (FCSHD). UNIMAS is the eighth university in Malaysia and the first in East Malaysia at Kota Samarahan, Sarawak. UNIMAS was formerly inaugurated at 24 December 1992. Its operation started on 5 April 1993.

This research targeted on Cognitive Sciences students regarding to their degree of P-E fit and academic achievement. According to theory of Behaviourism, people interact with environment factors throughout life time (Corey, 2005). In fact, students are learning to adapt to the environment as well.

By the way, first year students can change their major after first year of study. Therefore, they have the right to change their program for better academic outcome. Subsequently, this helps to reduce the numbers of first year students in receiving the status of *Lulus Bersyarat 1*. For this purpose, it is important to suit the remedy to the case – study the placement issue of Cognitive Sciences student in UNIMAS.

### **1.2.1 Previous Studies**

Many researcher have conducted research by referring to Holland's P-E fit theory through the ages. They focus on P-E fit factor to the level of job satisfaction out of placement of individual (Fadilah binti Salleh, 1997; Furnham & Schaeffer, 1984; Kroeger, 1995; Seow, 2005), mental health stage (Furnham & Schaeffer, 1984) such as absenteeism, frustration, and stress (Furnham & Walsh, 2001), vocational preferences (Pike, 2006a ; Pike, 2006b), self-selection of majors (Pike, 2006a; Pike, 2006b; Porter & Umbach, 2006), and students' expectation (Pike, 2006a; Pike, 2006b). There was no known research was conducted on Cognitive Sciences students in the concern of academic performance.

Besides, there are research conducted regarding some factors such as language proficiency, age, gender factors (Yong, 2005), personality (Lau & Shaffer, 1999) and student engagement in educationally purposeful activities (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008) to academic achievement.

Another research looked into the influence of personality in the placement of workers in an organization in Sarawak (Mohamad Ismandi Taha, 1998). The research was conducted to identify the congruency between the personalities of

workers in the various departments (P-E factor) of a single company to their job performance. This shows several similarities to the direction of this research.

Most of the research conducted by using Self-Directed Search (SDS) inventory employed quantitative method. This is because of its relatedness nature to the degree of P-E fit. Quantifying data is basic requirement in order to calculate the P-E fit degree which is correlated with academic performance. Therefore, this research paper is using quantitative method. This will be further discussed in Chapter 3.

### **1.3 Statement of Problem**

In the previous year, FCSHD has been alerted regarding the news of the drastically increasing number of first year students (for the year 2007/08) in UNIMAS who obtained '*Lulus bersyarat 1*'. *Lulus bersyarat 1* is a status where student obtained the Cumulative Grade Point Average (CGPA) between 1.50 and 1.99 in University state (Bahagian Pengajian Prasiswazah, 2008). Apparently, this is a vital issue and need extra attention in handling it. Therefore, the concern of this study is overcoming the academic performance problem so that counsellor able to develop treatment plans for them.

This phenomenon is significant to Cognitive Sciences program. In the following semester, great numbers of Cognitive Sciences students have been transferred to another program. Few of them decided to quit due to the poor academic achievement in this major which was not their preference too. Higher transfer rate was another incident that happened and grabbed the attention of FCSHD.

Regularly, these incidents will affect the overall performance of FCSHD. Therefore, factors contributing to the poor academic achievement among students should be identified so that proper strategies could be planned and implemented to overcome this issue. This is in order to avoid the worsening of this problem in the future.

In fact, some of the students have been auctioned to the major that they did not choose. This phenomenon is due to the lacking of place for those hot picked majors such as Medical, Management, Biotechnology, and Pharmaceutics (Ministry of Higher Education, 2008). The auction of students to other major is mostly least fit with their preference and thus caused poor academic achievement and transfer rate. This shows the issue of placement of students that happened in UNIMAS.

In the same path, Gattiker and Larwood (as cited in Lau and Shaffer, 1999) has suggested, "*A congruence environment encourages achievement*" (p.226). On the other hand, an incongruent environment encourages people to either leave or modify their attitudes toward career (Spokane as cited in Lau and Shaffer, 1999). This explains the transfer rate of P-E least fit students to be high.

In addition, there is no three-letter Summary Code (Holland's Occupational Code) for Cognitive Sciences Program in the Holland's Occupational Finder because research on them were lacking. Due to the limited number of past researcher in this issue, there is a need to conduct a research regarding the influence of P-E fit on academic achievement, in relation to the nature or type of the learning environment. Furthermore, Holland's P-E fit theory suggested that best fit condition between personality and environment will result in satisfaction and performance (Dunning, 2001); and in the case of this study, it will result in better academic achievement.

## **1.4 Research Objectives**

### **1.4.1 General Objective**

To identify the correlation of academic achievement with various factors such as P-E fit (Western Context), P-E fit (Malaysia Context), student's preference, and entering GP for Cognitive Sciences students.

### **1.4.2 Specific Objectives**

- 1.4.2.1 To identify the correlation of P-E fit factors (Western context) with academic achievement of Cognitive Sciences student in a Public Higher Education Institute in Malaysia.
- 1.4.2.2 To identify the correlation of P-E fit factors (Malaysia context) with academic achievement of Cognitive Sciences student in a Public Higher Education Institute in Malaysia.
- 1.4.2.3 To identify the correlation of student's preferences with academic achievement of Cognitive Sciences student in a Public Higher Education Institute in Malaysia.
- 1.4.2.4 To identify the correlation of entering GP with academic achievement of Cognitive Sciences student in a Public Higher Education Institute in Malaysia.
- 1.4.2.5 To identify the differences of academic achievement in terms of background of stream of study of Cognitive Sciences student in a Public Higher Education Institute in Malaysia.
- 1.4.2.6 To identify the differences academic achievement in terms of interest of Cognitive Sciences student in a Public Higher Education Institute in Malaysia.



## 1.5 Conceptual Framework

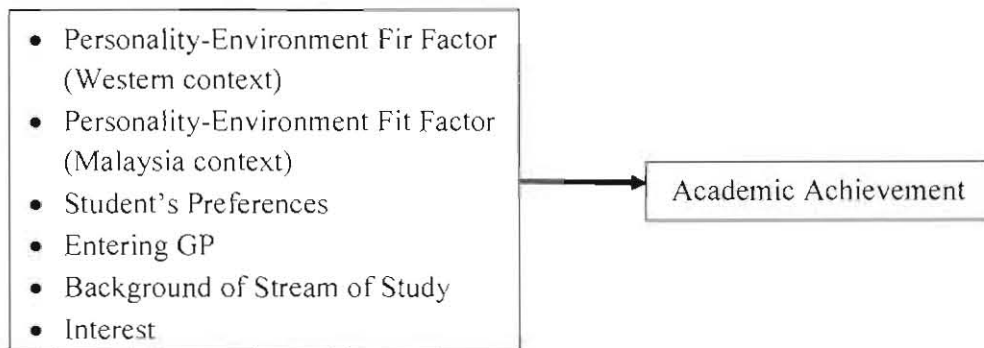


Figure 1.1 Conceptual Framework

Key concept of Figure 1.1: Correlation between P-E fit factor (both Western and Malaysia context), student's preferences and entering GP with academic achievement were tested with Pearson Correlation Test ( $r$ ). Other factors such as background of stream of study and interest are discussed by using cross tabs method to the academic achievement.

## 1.6 Hypotheses

**Ho<sub>1</sub>** There is no significant correlation between P-E fit factor (Western context) with the academic achievement for Cognitive Sciences student in a Public Higher Education Institute in Malaysia.

**Ho<sub>2</sub>** There is no significant correlation between P-E fit factor (Malaysia context) with the academic achievement for Cognitive Sciences student in a Public Higher Education Institute in Malaysia.

**Ho<sub>3</sub>** There is no significant correlation between student's preferences with the academic achievement for Cognitive Sciences student in a Public Higher Education Institute in Malaysia.

**Ho<sub>4</sub>** There is no significant correlation between entering GP with the academic achievement for Cognitive Sciences student in a Public Higher Education Institute in Malaysia.

### **1.7 Significance of Study**

One of the importance of this study is showing concern to the career planning and prospect of Cognitive Sciences student. There was a Cognitive Sciences Association in Malaysia (Ng Giap Weng, personal communication, February 11, 2009) but no known to public as well as Cognitive Sciences students. This suggested that most of them have no idea regarding the career information centre as well as helping authority in carer planning. This research opens an opportunity to them. They can discuss their issue with researcher and gain knowledge regarding the factor of academic achievement for their population.

In the counselling context, this research is contributing knowledge in adding the research in Holland P-E fit factor, particularly in Cognitive Sciences in this research. Some other factors (background of stream of study and interest, student's preference and entering GP) were discussed and tested. In addition, this research paper can contribute to the implication of SDS in Malaysia context. Career counsellor can gain information regarding the factors for academic achievement through this paper. This helps to ease the career counsellor get more information about the Cognitive Sciences student by examining this sample.

Ministry of Higher Education arise the awareness to the placement issue of Cognitive Sciences student in public higher education institution is another importance of this study. The findings showed their unwillingness to Cognitive Sciences at the beginning. Most of them were auctioned to this program and this caused high transfer rate. Transfer is eventually adding the work load of faculty and administrator. Therefore, Ministry of Higher Education should acknowledge the difficulties of Cognitive Sciences student through this research.