THE RELATIONSHIP OF PERSONALITY-ENVIRONMENT (P-E) 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 Bachelor of Science with Honours Counselling

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Statement of Originality

The work described in this Final Year Project, entitled “The Relationship Between Personality-Environment Fit Factor and Academic Achievement on Malaysian University Cognitive Sciences Students” is to the best of the author’s knowledge that of the author except where due reference is made.

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The project entitled ‘The Relationship Between Personality-Environment Fit Factor and Academic Achievement on Malaysian University Cognitive Sciences students’ was prepared by Kong Wai Teng and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfilment of the requirements for a Bachelor of Science with Honours Counselling.

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Acknowledgement</th>
<th>iii</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table of Contents</td>
<td>iv</td>
</tr>
<tr>
<td>List of Tables</td>
<td>vii</td>
</tr>
<tr>
<td>List of Figures</td>
<td>xi</td>
</tr>
<tr>
<td>Abstract</td>
<td>xii</td>
</tr>
<tr>
<td>Abstrak</td>
<td>xiii</td>
</tr>
</tbody>
</table>

## CHAPTER 1 – INTRODUCTION

1.0 Introduction  
1.1 Purpose of the Study  
1.2 Background of the Study  
   1.2.1 Previous Studies  
1.3 Statement of Problem  
1.4 Research Objectives  
   1.4.1 General Objective  
   1.4.2 Specific Objectives  
1.5 Conceptual Framework  
1.6 Hypotheses  
1.7 Significance of Study  
1.8 Definition of Terms  
   1.8.1 Person-Environment (P-E) Fit  
   1.8.2 Grade Point Average (GPA)  
   1.8.3 Student  
   1.8.4 Cognitive Sciences  
   1.8.5 Academic Achievement  
   1.8.6 Student’s Preference  
   1.8.7 Background of Stream of Study  
   1.8.8 Interest  
   1.8.9 Entering GP  
1.9 Conclusion

## CHAPTER 2 – LITERATURE REVIEW

2.0 Introduction  
2.1 Theory of the Research  
   2.1.1 Types of Personality and Environment  
2.2 Previous Studies of the P-E Fit Factor and the Placement of Individual  
2.3 Previous Studies of the P-E Fit Factor and Student’s Preference and Major Choice  
2.4 Previous Studies of the P-E Fit Factor and Academic Achievement
4.1.1.4 Three-letter Summary Code (Malaysia Context) 48
4.1.2 Factors 49
  4.1.2.1 Degree of P-E Fit (Western Context) 49
  4.1.2.2 Degree of P-E Fit (Malaysia Context) 50
  4.1.2.3 Student’s Preferences 51
  4.1.2.4 Entering GP 52
  4.1.2.5 Background of Stream of Study 53
  4.1.2.6 Interest 54
    4.1.2.6.1 Interest and Personality 54
    4.1.2.6.2 Career Prospect is Attractive 55
    4.1.2.6.3 The Courses of Cognitive Sciences 56
4.1.3 Dependent Variable 57
4.2 Hypotheses 57
  4.2.1 Ho1 58
  4.2.2 Ho2 59
  4.2.3 Ho3 60
  4.2.4 Ho4 61
  4.2.5 Linear Regression 62
4.3 Conclusion 64

CHAPTER 5 – SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.0 Introduction 65
5.1 Summary 66
5.2 Limitation 69
5.3 Significance of the Study 70
  5.3.1 Students 70
  5.3.2 Institutions of Higher Learning (Government of Private) 71
  5.3.3 Ministry of Higher Education 71
  5.3.4 Counselling Services 72
  5.3.5 Academic and Knowledge Contribution 73
  5.3.6 Future Researcher 73
5.4 Conclusion 74

REFERENCES 75
BIBLIOGRAPHY 80
APPENDIX 83
APPENDIX A: QUESTIONNAIRE 83
APPENDIX B: SELF-DIRECTED SEARCH INVENTORY 86
APPENDIX C: THREE-LETTER SUMMARY CODE (WESTERN CONTEXT) 92
APPENDIX D: THREE-LETTER SUMMARY CODE (MALAYSIA CONTEXT) 93
APPENDIX E: IACHAN AGREEMENT INDEX (WESTERN CONTEXT) 94
APPENDIX F: IACHAN AGREEMENT INDEX (MALAYSIA CONTEXT)
<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Categories of CGPA</td>
<td>10</td>
</tr>
<tr>
<td>2.1</td>
<td>Degree of P-E fit</td>
<td>17</td>
</tr>
<tr>
<td>2.2</td>
<td>Example of SDS score</td>
<td>19</td>
</tr>
<tr>
<td>2.3</td>
<td>The description of RIASEC for P-E fit theory</td>
<td>20</td>
</tr>
<tr>
<td>3.1</td>
<td>Example of SDS score</td>
<td>35</td>
</tr>
<tr>
<td>3.2</td>
<td>Method in Calculating the Iachan Agreement Index</td>
<td>36</td>
</tr>
<tr>
<td>3.3</td>
<td>Degree of P-E fit</td>
<td>36</td>
</tr>
<tr>
<td>3.4</td>
<td>Factor contributing to academic achievement</td>
<td>37</td>
</tr>
<tr>
<td>3.5</td>
<td>Strength of Correlation</td>
<td>38</td>
</tr>
<tr>
<td>3.6</td>
<td>Usage of the collected data</td>
<td>39</td>
</tr>
<tr>
<td>4.1</td>
<td>Descriptive analysis of gender</td>
<td>45</td>
</tr>
<tr>
<td>4.2</td>
<td>Descriptive analysis of years of study</td>
<td>46</td>
</tr>
<tr>
<td>4.3</td>
<td>Descriptive analysis of three-letter Summary Code (Western Context)</td>
<td>47</td>
</tr>
<tr>
<td>4.4</td>
<td>Descriptive analysis of three-letter Summary Code (Malaysia Context)</td>
<td>48</td>
</tr>
</tbody>
</table>
Table 4.5
Descriptive analysis of Degree of P-E fit (Western Context) 49

Table 4.6
Descriptive analysis of Degree of P-E fit (Malaysia Context) 50

Table 4.7
Descriptive analysis of student’s preferences 51

Table 4.8
Descriptive analysis of entering GP 52

Table 4.9
Cross Tabs of background of stream of study to academic achievement 53

Table 4.10
Cross Tabs of interest (interest and personality) to academic achievement 54

Table 4.11
Cross Tabs of interest (career prospect is attractive) to academic achievement 55

Table 4.12
Cross Tabs of interest (the courses of Cognitive Sciences) to academic achievement 56

Table 4.13
Descriptive analysis of academic achievement 57

Table 4.14
Correlation between P-E fit factor (Western context) and academic achievement 58

Table 4.15
Correlation between P-E fit factor (Malaysia context) and academic achievement 59

Table 4.16
Correlation between student’s preferences and academic achievement 60

Table 4.17
Correlation between entering GP and academic achievement 61

Table 4.18
ANOVA table for predictor 62
Table 4.19
Table of excluded variable 63

Table 4.20
Stepwise linear regression between factor and dependent variable 64

Table 5.1
Summary of the findings 68
LIST OF FIGURES

Figure 1.1
Conceptual framework 7

Figure 2.1
Holland’s hexagonal model of personality and environment type 16

Figure 3.1
Data collection framework 33

Figure 4.1
Normal P-P Plot of Regression standardized residual 39
ABSTRACT

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

KONG WAI TENG

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 pemadanan P-E Holland merupakan tulang belakang untuk kajian ini. Kajian-kajian lepas mencadangkan bahawa faktor pemadanan P-E menyumbang kepada kejayaan dan kepuasan seseorang. Dalam kajian ini, faktor-faktor lain (kecenderungan pelajar, dan GP kemasukan universiti) turut diuji. Cara quantitatif digunakan untuk mengira korelasi antara predictor (faktor-faktor) dengan criterion (pencapaian akademik). Dapatan kajian menunjukkan tidak ada korelasi yang signifikan antara faktor pemadanan 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 pemadanan P-E, dan kegemaran pelajar) adalah bercanggahan dengan penyelidik-penyelidik yang lepas. Penambahan kajian hendaklah dijalankan untuk mengumpul lebih data berhubung sample ini bagi isu yang sama. Kajian ini boleh diperbanyak bersama-sama dengan faktor-faktor lain yang berpotensi mempunyai korelasi dengan pencapaian akademik bagi pelajar Sains Kognitif.
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

- Personality-Environment Fit Factor (Western context)
- Personality-Environment Fit Factor (Malaysia context)
- Student’s Preferences
- Entering GP
- Background of Stream of Study
- Interest

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

\textbf{Ho}_1 \quad \text{There is no significant correlation between P-E fit factor (Westent context) with the academic achievement for Cognitive Sciences student in a Public Higher Education Institute in Malaysia.}

\textbf{Ho}_2 \quad \text{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.}

\textbf{Ho}_3 \quad \text{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.}
$H_{04}$ 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 career 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.
This research is important for future researcher. There is no known research is using Cognitive Sciences student as their sample in research on P-E fit with academic achievement. Hence, this research requires duplication and this is a challenge for future researcher with limited literature sources. More researcher need to be involved in the research regarding this sample in relation to career counselling in the light of providing more information and supporting data to this research.

1.8 Definition of Terms

1.8.1 Person-Environment (P-E) Fit

1.8.1.1 Conceptual Definition

P-E fit theory is a widely used in determining career decision by introducing the degree of congruency of P-E of an individual. It helps an individual gains satisfaction and maximizes his potential and ability in the selected career (Davidshofer & Murphy, 1998). There are six types of personality as well as environment in Holland’s P-E fit theory; Reality, Investigative, Artistic, Social, Enterprising, and Conventional (R-I-A-S-E-C).

1.8.1.2 Operational Definition

Environment is the learning environment of the respondent in the program of Cognitive Sciences while the personality is referring to the research participants’ Holland code out of three of the R-I-A-S-E-C theme of Holland P-E fit factor.

1.8.2 Grade Point Average (GPA)

1.8.2.1 Conceptual Definition

GPA is defined as the academic achievement of a student for a particular semester (Bahagian Pengajian Prasiswazah, 2008). According to McFeeters (2008), GP can be divided into five categories, 0.00-1.99, 2.00-2.49, 2.50-2.99, 3.00-3.49, 3.50-4.00.