CAUSAL ATTRIBUTION IN ACADEMIC ACHIEVEMENT AMONG MALAY AND CHINESE ENGINEERING UNDERGRADUATES IN UNIVERSITI PUTRA MALAYSIA

ONG ZEN KAI

MASTER OF SCIENCE
UNIVERSITI PUTRA MALAYSIA

2006

CAUSAL ATTRIBUTION IN ACADEMIC ACHIEVEMENT AMONG MALAY AND CHINESE ENGINEERING UNDERGRADUATES IN UNIVERSITI PUTRA MALAYSIA

By

ONG ZEN KAI

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

March 2006

DEDICATION

To my parents, in-laws, Claire and little Vianna, for their patience, support and love.

Abstract of thesis presented to the Senate of the Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

CAUSAL ATTRIBUTION IN ACADEMIC ACHIEVEMENT AMONG MALAY AND CHINESE ENGINEERING UNDERGRADUATES IN UNIVERSITI PUTRA MALAYSIA

By

ONG ZEN KAI

March 2006

Chairman: **Ma'rof Redzuan, PhD**

Faculty: **Human Ecology**

The purpose of this study was to examine causal attribution in the academic achievement of engineering undergraduates in Universiti Putra Malaysia. This study aimed to investigate and compare how Malay and Chinese students perceive causes for various success and failure situations, based on Weiner's (1979) three-dimensional taxonomy in categorizing causes. The dimensions are locus of causality, stability and controllability (further divided into personal and external controllability). A total of 146 second-year engineering students were selected using stratified sampling method. The instrument used in this study was the Revised Causal Dimension Scale (CDSII) designed by McAuley et al. (1992). Questionnaires were constructed using simulational technique, in which short stories in various situations of academic achievements were presented. Respondents were asked to read and identify intensively with the acting persons in the stories. Then, they were asked to explain causes for the result in that story. In this study, Malay students scored remarkably lower than Chinese students in terms of average score in CGPA (2.79 for

Malays compared with 3.43 for Chinese). Despite evidencing on an average lower achievement than their Chinese counterparts, t-tests indicated that Malay subjects rated higher in locus ($\underline{p} < .01$) and personal controllability ($\underline{p} < .01$) dimensions while facing success situations. Correlation tests in success situations were consistent with the findings above, in which CGPA demonstrated negative relationships with both locus ($\underline{p} < .05$) and personal controllability ($\underline{p} < .01$) dimensions. This contradiction of low achievement versus high level in locus and controllability were further analyzed using subjective attributions provided by the respondents. Some implications for education were discussed based on culture as well as current social conditions in Malaysia. In general, Malay students believed that their effort will be rewarded, and make more internal and controllable attributions when faced with success in academic achievements. Chinese students also identified with consistent effort. However, unlike their Malay counterparts, Chinese students relatively disregarded the role of inconsistent effort in their achievement, thus made less internal and controllable attributions.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan ijazah Master Sains

ATRIBUSI TERHADAP SEBAB-SEBAB PENCAPAIAN DALAM AKADEMIK PELAJAR PRASISWAZAH KEJURUTERAAN MELAYU DAN CINA DI UNIVERSITI PUTRA MALAYSIA

Oleh

ONG ZEN KAI

Mac 2006

Pengerusi: **Ma'rof Redzuan, PhD**

Fakulti: **Ekologi Manusia**

Kajian ini bertujuan untuk menyelidik atribusi pelajar pra-siswazah jurusan kejuruteraan terhadap sebab-sebab dalam pencapaian akademik di Universiti Putra Malaysia. Ia bertujuan untuk mengkaji dan membandingkan persepsi pelajar Melayu and Cina terhadap pelbagai jenis situasi kejayaan dan kegagalan dalam akademik, berdasarkan kategori bertiga dimensi Weiner's (1979). Dimensi-dimensi tersebut adalah lokus, kestabilan, dan kebolehkawalan (Seterusnya dibahagi kepada kebolehkawalan diri dan kebolehkawalan luar). Seramai 146 orang pelajar jurusan kejuruteraan tahun dua telah dipilih secara rawak strata dan dijadikan sebagai sample kajian. Instrumen yang digunakan dalam kajian ini adalah *Revised Causal Dimension Scale (CDSII)* yang direkacipta oleh McAuley et al. (1992). Borang soal selidik dalam kajian ini menggunakan kaedah simulasi, di mana cerita-cerita pendek dalam pelbagai situasi pencapaian akademik ditujukan kepada responden. Responden dikehendaki untuk membaca dan membayangkan diri sebagai watak utama dalam setiap situasi. Selepas itu, responden dikehendaki menerangkan sebab-sebab yang

menghasilkan sesuatu kejayaan atau kegagalan. Dalam kajian ini, pencapaian pelajar Melayu amat rendah dalam markah purata CGPA berbanding dengan pelajar Cina (2.79 untuk Melayu berbanding dengan 3.43 untuk Cina). Walaupun pencapaian akademik pelajar Melayu rendah, ujian t telah menunjukkan pelajar Melayu menilai lebih tinggi dalam dimensi lokus ($\underline{p} < .01$) dan dimensi kebolehkawalan diri ($\underline{p} < .01$) semasa menghadapi situasi-situasi kejayaan. Ujian kolerasi dalam situasi kejayaan turut konsisten dengan dapatan di atas, di mana CGPA menunjukkan hubungan negative dengan kedua-dua dimensi lokus ($\underline{p} < .05$) dan dimensi kebolehkawalan diri ($\underline{p} < .01$). Kontradiksi pencapaian rendah versus tahap yang tinggi dalam lokus dan kebolehkawalan diri ini seterusnya dikaji dengan menggunakan atribusi subjektif yang diberi oleh responden. Beberapa implikasi dalam pendidikan telah dibincangkan berdasarkan kebudayaan dan juga kondisi sosial di Malaysia pada masa kini. Secara keseluruhan, pelajar Melayu percaya bahawa usaha mereka akan membuahkan hasil, dan membuat atribusi dalaman dan kebolehkawalan yang tinggi semasa mereka berdepan dengan kejayaan dalam pencapaian akademik. Pelajar Cina juga mengidentifikasi dengan usaha yang konsisten. Tetapi, berbeza dengan pelajar Melayu, pelajar Cina dengan relatif telah mengetepikan peranan usaha yang tidak konsisten dalam pencapaian mereka, dan seterusnya kurang membuat atribusi terhadap unsur dalaman dan kebolehkawalan.

ACKNOWLEDGEMENT

First and foremost I wish to give thanks to God Almighty for His grace and strength without which, I would have not completed this study in time.

To my committee chairperson and supervisor, Dr. Ma'rof Redzuan, I wish to express my deepest appreciation for your valuable advice, patience and guidance. Throughout the whole process of my study in Universiti Putra Malaysia, your encouragement and constant support have helped me to press on until the research completed and the thesis written. Under your supervision, I gained much experience in learning to conduct a good research. I will definitely miss the time I spent for this study, especially along with a supervisor like you.

To my advisory committee members, Dr. Asnarulkhadi Abu Samah and Pn. Hanisah Yaacob, I would like to express my heartiest gratitude, for two of you have been sources of help and valuable advice to me, without which the completion of this research would not have been possible. I truly treasure the time we spent together especially during the discussion sessions. Both of you deserve my very special thanks.

To Pn. Chek Zan Binti Kasah, Head of Academic of Students Administrative Department and Prof. Madya Dr. Shamsuddin Sulaiman, Deputy Dean of Academic of Engineering Faculty, thank you very much for providing me relevant information of engineering undergraduates, which is very important for my sampling methodology.

To Dr. Mohamad Azani Alias, Head of College 10 and Dr. Hajjah Fauziah binti Hassan, Head of College 11, I would like to thank both of you for providing me important information of the samples in this study and allowing me to conduct my survey in the students' hostels.

To the language experts, Mdm. Cheong Hung Ling and Ms. Kon Yoon How, I would like to express my heartiest gratitude for your help to edit my work. I also wish to express my thanks to my dear friends, Yap Ming Fai and Wong Sing Fei for assisting me to distribute and collect the questionnaires.

To students from Faculty of Engineering, Alan Fun Wai Ling, Teoh Hoon Pin, Hew Kah Mei, Al Hussien bin Abdul Hamid, Baharuddin bin Hassin, Abu Bakar bin Mohd Hassim and Arnisuriyani binti Rahamat, thank you very much for sharing your experience in various academic achievement situations that help me a lot to construct the questionnaires. Many thanks also go to my colleague, En. Wan Marzuki bin Wan Mohd. Noor, I appreciate your help to translate the questionnaires to Bahasa Malayu.

To all the respondents who had participated in this study, I would like to say a big "Thank You" for your participation. This study would not have been possible without your interest and involvement.

Last but not least, to my beloved wife, Claire. You have been a continuous source of inspiration and encouragement to me. Thank you for your patience, ideas, good humour, and unfailing love that bring the thesis to its completion.

"The fear of the Lord is the beginning of wisdom, and knowledge of the Holy One is understanding."

PROVERBS 9:10

ONG ZEN KAI

I certified that an Examination Committee has met on 24th March 2006 to conduct the final examination of Ong Zen Kai on his Master of Science thesis entitled "Causal Attribution in Academic Achievement among Malay and Chinese Engineering Undergraduates in Universiti Putra Malaysia" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Act 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

Mansor Abu Talib, PhD
Lecturer
Faculty of Human Ecology
Universiti Putra Malaysia
(Chairman)

Maznah Baba, PhD
Lecturer
Faculty of Education
Universiti Putra Malaysia
(Internal Examiner)

Mariani Mansor, PhD
Lecturer
Faculty of Human Ecology
Universiti Putra Malaysia
(Internal Examiner)

Jas Laile Suzana Jaafar, PhD
Associate Professor
Faculty of Arts and Social Sciences
Universiti Malaya
(External Examiner)

_____
ZAKARIAH ABDUL RASHID, PhD
Professor/Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Master of Science. The members of the Supervisory Committee are as follows:

Ma'rof Redzuan, PhD
Lecturer
Faculty of Human Ecology
Universiti Putra Malaysia
(Chairman)

Asnarulkhadi Abu Samah, PhD
Lecturer
Faculty of Human Ecology
Universiti Putra Malaysia
(Member)

Hanisah Yaacob,
Lecturer
Faculty of Human Ecology
Universiti Putra Malaysia
(Member)

_____
AINI IDERIS, PhD
Professor/Dean
School of Graduate Studies
Universiti Putra Malaysia

Date:

DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

_____

ONG ZEN KAI

Date:

TABLE OF CONTENTS

		Page
DEDICATION		ii
ABSTRACT		iii
ABSTRAK		v
ACKNOWLEDGEMENT		vii
APPROVAL		x
DECLARATION		xii
LIST OF TABLES		xvii
LIST OF FIGURES		xx
CHAPTER		
1	**INTRODUCTION**	
1.1	Introduction	1
1.2	Problem Statement	4
1.3	Background	7
1.3.1	Study Background	7
1.3.2	Organization Background	9
1.4	Research Questions	9
1.5	Objective	10
1.5.1	General Objective	10
1.5.2	Specific Objectives	11
1.6	Research Hypotheses	12
1.7	Operational Definitions	16
1.7.1	Causal Attributions	16
1.7.2	Revised Causal Dimension Scale (CDSII)	17
1.7.3	Academic Achievements	17
1.7.4	Engineering Undergraduates	17
1.7.5	Locus of Causality	18
1.7.6	Stability	18
1.7.7	Controllability	18
1.8	Significance of Research	19
1.9	Limitation of the Study	20
2	**LITERATURE REVIEW**	
2.1	Introduction	22
2.2	Background of Attribution Theories	22
2.3	Attributional Approach in Academic Achievement	24
2.4	Weiner's Attributional Theory of Achievement Motivation	26
2.5	Background and Evolutions of Revised Causal Dimension Scale (CDSII)	28

	2.6	Some Related Studies in Malaysia	31
	2.7	Culture and Its Significance in Education	34
	2.8	Chinese Achievement and Emphasis in Education	36
	2.9	Background of Education within Malay Society	39
3	**RESEARCH METHODOLOGY**		
	3.1	Introduction	42
	3.2	The Research Design	42
	3.3	Research Theoritical Framework	43
	3.4	Research Conceptual Outline	44
	3.5	Location and Background of the Study Area	44
	3.6	Sampling	45
		3.6.1 Population	45
		3.6.2 Sampling Method	45
		3.6.3 Distribution of the Respondents According to the Programmes	46
	3.7	The research instrument	48
		3.7.1 The Questionnaires	48
		3.7.2 Stories Constructions	49
		3.7.3 The Revised Causal Dimension Scale (CDSII)	51
		3.7.4 Translation of CDSII	52
	3.8	Pilot test	55
		3.8.1 Reliability	55
		3.8.2 The Final Version of Questionnaires	56
	3.9	Data Collection Procedures	56
	3.10	Data Analysis	58
4	**RESEARCH FINDINGS AND DISCUSSIONS**		
	4.1	Introduction	60
	4.2	Background of the Respondents	60
	4.3	Students' Overall Causal Attribution of Four Causal Dimensions	65
		4.3.1 Students' Overall Ratings of Four Causal Dimensions (Regardless of Success or Failure Situations)	66
		4.3.2 Students' Overall Ratings of Four Causal Dimensions in Success Situations	67
		4.3.3 Students' Overall Ratings of Four Causal Dimensions in Failure Situations	68
	4.4	Students Causal Attribution of Four Causal Dimensions in Specific Situations	69
		4.4.1 Students' Causal Attribution in 'Consistent Effort' (success) Situation	70
		4.4.2 Students' Causal Attribution in 'Lack of Consistent Effort' (failure) Situation	71
		4.4.3 Students' Causal Attribution in 'Inborn Aptitude' (success) Situation	72
		4.4.4 Students' Causal Attribution in 'Inborn Inability' (failure) Situation	73
		4.4.5 Students' Causal Attribution in 'Temporary Effort' (success) Situation	74
		4.4.6 Students' Causal Attribution in 'Temporary Effort' (failure) Situation	75

4.4.7 Students' Causal Attribution in 'Mood' (success) Situation 76
4.4.8 Students' Causal Attribution in 'Mood' (failure) Situation 77
4.4.9 Students' Causal Attribution in 'Task Difficulty' (success) Situation 78
4.4.10 Students' Causal Attribution in 'Task Difficulty' (failure) Situation 79
4.4.11 Students' Causal Attribution in 'Partner's Attitude' (success) Situation 80
4.4.12 Students' Causal Attribution in 'Partner's Attitude' (failure) Situation 81
4.4.13 Students' Causal Attribution in 'Unusual Help from Others' (success) Situation 82
4.4.14 Students' Causal Attribution in 'Lecturer's Bias' (failure) Situation 83
4.4.15 Students' Causal Attribution in 'Luck' (success) Situation 84
4.4.16 Students' Causal Attribution in 'Luck' (failure) Situation 85
4.4.17 Summary of the Students' Causal Attribution in 16 Specific Situations 86
4.5 Students' Subjective Causal Attributions 87
4.6 The Relationships between students' results (CGPA) and four causal dimensions 88
4.6.1 The Overall Relationships between Students' Result (CGPA) and Causal Attributions (Regardless of Success and Failure Situations, and Racial Factor) 88
4.6.2 The Relationships between Students' Result (CGPA) and Causal Attributions in Success Situations (Regardless of the Racial Factor) 90
4.6.3 The Relationships between Students' Result (CGPA) and Causal Attributions in Failure Situations (Regardless of the Racial Factor) 91
4.6.4 The Relationships between Students' Result (CGPA) and Causal Attributions within Malay Respondent (Regardless of Success and Failure Situations) 92
4.6.5 The Relationships between Students' Result (CGPA) and Causal Attributions within Malay Respondents in Success Situations 93
4.6.6 The Relationships between Students' Result (CGPA) and Causal Attributions within Malay Respondents in Failure Situations 94
4.6.7 The Relationships between Students' Result (CGPA) and Causal Attributions within Chinese Respondents (Regardless of Success and Failure Situations) 95
4.6.8 The Relationships between Students' Result (CGPA) and Causal Attributions within Chinese Respondents in Success Situations 96

4.6.9 The Relationships between Students' Result (CGPA) and Causal Attributions within Chinese Respondents in Failure Situations 96
4.6.10 Summary of the Relationships between students' results (CGPA) and four causal dimensions 97
4.7 The Discussions of the Findings 99
4.7.1 Comparison between Malay and Chinese Students' Causal Attribution in Overall Success Situations 99
4.7.2 Comparison between Malay and Chinese Students' Causal Attribution in Overall Failure Situations 100
4.7.3 Comparison of Malay and Chinese Students' Causal Attribution in Specific Situations 100
4.7.4 Findings from Students' Subjective Causal Attributions 104
4.7.5 Students' Subjective Causal Attribution of Effort in Academic Achievement 105
4.7.6 Paradox of Low Achievement versus High Level in Locus, Controllability and Effort 108
4.7.7 The Relationships between Students' Result (CGPA) and Causal Attributions 110
4.7.8 Potential Factors in Contributing to Causal Attribution of the Students 112

5 CONCLUSIONS AND RECOMMENDATIONS
5.1 Introduction 123
5.2 A Summary of the Study 123
5.3 A Summary of the Findings 125
5.4 Conclusions 128
5.5 Implications of the Study 128
5.6 Recommendations for Future Research 130

REFERENCES 132
APPENDICES 138
BIODATA OF THE AUTHOR 180