

**UNIVERSITI TEKNOLOGI MARA**

**CURRENT PRACTICE IN PHARMACY  
EDUCATION: INTER- AND INTRA-COUNTRY  
COMPARISONS OF THE PHARMACY  
PRACTICE SYLLABUS**

**MOHD. GHAZALI BIN ISMAIL**

**Dissertation submitted in partial fulfillment of the  
requirements for the**

Faculty of Pharmacy

November 2006

## **ACKNOWLEDGEMENT**

I sincerely thank the many people whose help and suggestions were so valuable in preparing this project paper, particularly our Dean, Professor Dr. Abu Bakar Abdul Majeed.

I would like to thank Dr. Lua Pei Lin, Faculty Supervisor for this project paper. Thank you for your guidance and information that helped me until I managed to complete up my project. I would like to thank to Pn. Ezlina Usir, Pharmacy Practice Course Coordinator for Faculty of Pharmacy UiTM for giving me a copy of Pharmacy Practice module and syllabus which was very essential to me to finish my project. I also would like to thank to Miss Nur Zarifah bte Zakaria from Faculty of Allied Health Sciences UKM for borrowing me her Student Handbook. I also would like to thank to Miss Maria Suhana bte Ismail, Miss Elya Noor bte Seikh Omar and Mr. Ahmad Redza bin Ahmad Nizam for borrowing me their Notebook computers. I cannot complete my project on time without all their help.

A special thank to my family, lecturers of Faculty of Pharmacy UiTM and all my friends for forbearance and support throughout this challenging project, which consumed much time.

Finally, to all those have taken part either directly or indirectly in completing this research report.

Thanks a lot.

# TABLE OF CONTENTS

	Page
TITLE PAGE	
APPROVAL FORM	
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii – iv
LIST OF TABLES	v
ABSTRACT	
CHAPTER ONE (INTRODUCTION)	
1.1 Introduction	1
1.2 Statement of the problem	2
1.3 Significance of the project	3
CHAPTER TWO (LITERATURE REVIEW)	
2.1 Pharmacy education	4
2.1.1 Pharmacy education in the United States of America (USA)	5
2.1.2 Pharmacy education in the United Kingdom (UK)	5
2.1.3 Pharmacy education in the Australia	6
2.1.4 Pharmacy education in the Malaysia	7
2.2 Pharmacy Practice in Malaysia	7
CHAPTER THREE (MATERIALS AND METHODS)	
3.1 Study design	9
3.2 University selection	9
3.3 Study procedure	9
3.4 Data collection method	10
CHAPTER FOUR (RESULTS)	
4.1 General	11
4.2 Intra-country and inter-country comparisons of the Pharmacy Practice syllabi	
4.2.1 Intra-country comparisons of the Pharmacy Practice syllabi	12
4.2.1.1 Similarities	12
4.2.1.2 Differences	12
4.2.2 Inter-country comparisons of the Pharmacy Practice syllabi	14
4.2.2.1 Similarities	14
4.2.2.2 Differences	14

## ABSTRACT

Pharmacy education covers wide scope of study and Pharmacy Practice is one of the components. This project was conducted to make a comparison between the Pharmacy Practice syllabi from 6 established Universities. The purposes of this project were to determine the similarities and differences of Pharmacy Practice syllabi structured within the selected universities. Using direct head-to-head comparison, Pharmacy Practice syllabi from selected universities were directly compared and the relevant, matching sub-topics were analyzed. Three aspects were screened; including the similarities of syllabi components, the differences of syllabi components, and the evaluation format conducted during learning assessment. The data were presented in table form as percentage of course work to written examination ratio. In terms of similarity, all the universities offered Pharmacy Practice syllabi which consist of dispensing, manufacturing and compounding skills, sterile production management, and community and hospital Pharmacy Practice as core components. However, no standard nomenclatures were given to all Pharmacy Practice-related courses stated in Pharmacy degree curricula of the respective universities. Two approaches were used as Pharmacy Practice syllabi instrument to evaluate students performance; course work and written examination. Traditionally, written examination was given higher priority as compared to course work in term of assessment ratio. In addition to that, every university had specific format to evaluate the students. However, the justification of use of such approaches was not cleared. A comprehensive study should be conducted to design a standard for Pharmacy Practice syllabi that can be used for all universities worldwide.

Keywords: pharmacy education, pharmacy curricula, pharmacy practice, syllabi comparison.

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Any organization offering pharmacy education should be able to verify that they could produce students with unique or advanced levels of knowledge and skills in pharmacy-related subjects (Sheaffer, 2004). Pharmacy Practice was actually one of the core syllabi in pharmacy education. Pharmacy Practice evolved from principally manufacturing to principally compounding and dispensing; working into hospital Pharmacy Practice and community Pharmacy Practice; and finally growing into the principle of pharmaceutical care (Lofland & Lyles, 2004).

According to Pierpaoli and Schwartz (1998), Pharmacy Practice also can be differentiated by service or setting (hospital, independent community and chain pharmacies, home care, managed care, nuclear and industrial pharmacist). Pierpaoli and Schwartz (1998) also added that pharmacist should use all settings in Pharmacy Practice to complete the mission of pharmaceutical care.