

**UNIVERSITI TEKNOLOGI MARA**

**CURRICULUM REVIEW FOR DIPLOMA IN  
PHARMACY: A STEP TOWARDS NEEDS BASED  
EDUCATION**

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## ABSTRACT

Programmatic curricular assessment and subsequent revision are crucial to equip new graduates with latest information to meet challenges in a rapidly advancing scientific world. The primary objective of the study was to determine pharmacists' and assistant pharmacists' opinions towards the knowledge and skills deemed necessary for pharmacy assistants in order to improve and strengthen current diploma of pharmacy curriculum at Universiti Teknologi MARA, Malaysia. A cross sectional survey was conducted from April to May 2009. A 23-item validated questionnaire was mailed to the pharmacists and assistant pharmacists, recruited from 8 major hospitals in Malaysia. A 5-point likert scale ranging from not required at all to really required was used to elicit the responses. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 15. Sixty-four pharmacists and fifty two assistant pharmacists participated in the survey. Compounding of drugs (100%) followed by pharmaceutical calculations (98%), Sterile Compounding, Aseptic Technique and IV Admixture (98%) and medication error deterrence (96%) were the most frequently cited topics required to be part of an effective curriculum. In addition, dispensing (92%), Good Laboratory Practice, Good Manufacturing Practice, Quality Assurance, Quality Control (95.7%) and interpreting medication order and prescriptions (94%) were also thought to be a required component of the curriculum. On the other hand, knowledge on topics like patient monitoring (46%), research in pharmacy practice (60%) and traditional and complementary medicine (62%) were assumed not required by a pharmacy assistant. In conclusion, the knowledge gained through present study will benefit universities in the development and up-gradation of diploma of pharmacy curriculum in future.

# CHAPTER 1

## INTRODUCTION

### 1.1 Background

Outcome assessment can be defined as the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development (Palomba and Banta, 1999).

Methods that can be used to assess student learning fall into 2 general categories, formative and summative assessment. The assessment methods must balance between summative and formative evaluation and between theory and practical examinations (Pharmacy Board Malaysia, 2007). These assessments which include portfolios, projects, standardized tests, course-embedded activities, and in class examinations can provide direct evidence of student learning. Indirect evidence of student learning can be obtained from student focus groups, employer, student or alumni surveys, and data concerning career success (position, admission to graduate programs, job placement) after graduation. A combination of methods is likely to yield a more comprehensive understanding of the success of a curriculum or program in facilitating student learning (Szilagyi, 2007).