

UNIVERSITI TEKNOLOGI MARA

**A SURVEY ON METHODS OF LEARNING
AMONGST UNDERGRADUATE
PHARMACOLOGY STUDENTS OF UITM
PUNCAK ALAM AND SUNGAI BULOH
CAMPUSES**

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ABSTRACT

Pharmacology is a core subject for undergraduate medical and health sciences students. Effective learning of pharmacology is crucial to enable students to apply the knowledge in professional practice. Learning methods are divided into traditional and non-traditional. Traditional learning methods (TLM) such as lectures are teacher-directed and may not provide students with skills or deep knowledge. Non-traditional learning methods (NTLM) such as problem-based learning, engage students in self-directed learning with their active participation in the learning process. The purpose of this study was to identify the extent to which non-traditional methods are used in learning of undergraduate pharmacology among third-year pharmacy, medical, dentistry, nursing, and nutrition & dietetic students, to determine what factors influence the use of non-traditional methods in students' learning to determine students' perceptions of non-traditional learning approaches and to examine whether non-traditional methods are effective in learning of pharmacology. This is a cross-sectional study involving 277 respondents from third-year medical, pharmacy, dentistry, nursing as well as nutrition and dietetic study program. The sampling technique used was quota sampling. Data were analysed by using Statistical Package for Social Science (SPSS) version 22 and Microsoft Excel 2010. The finding from this study shows that the use of non-traditional learning methods among students is not widely encouraging. The following is the rank of actual usage of non-traditional learning methods by students from five study programs: problem-based learning (78.3%) > case-based learning (62.6%) > video or youtube (60.0%) > computer-aided learning (59.6%) > seminar or workshop (29.1%). The study also shows that among the factors that influence students to use non-traditional learning methods are good interaction and communication between friends and sense of responsibility towards learning. Students have positive perceptions towards non-traditional learning methods. The level of students' perceptions of non-traditional learning approach is quite high with a mean value of 3.84. The majority of respondents (n= 210) prefer to use both non-traditional and traditional methods in learning of undergraduate pharmacology. Out of 210 respondents, 195 respondents (92.86%) agree that their preferred method of learning undergraduate pharmacology is an effective method. Combination of the traditional and non-traditional method is an effective mean of learning pharmacology than non-traditional learning methods alone. This study fails to demonstrate the superiority of nontraditional learning methods to traditional learning methods in learning of undergraduate pharmacology.

CHAPTER 1

INTRODUCTION

1.1 Background

Pharmacology is a core subject for undergraduate degree students of medical and health sciences. It is a branch of medicine that studies the mechanisms of action, effects and uses of drugs. Pharmacology is evidence-based science. Effective learning of pharmacology is crucial so that students do not only memorize facts, but are also able to apply knowledge of pharmacology in professional practice. The 21st century has seen a shift in education delivery from traditional teaching and learning (T&L) methods to nontraditional T&L methods.

Learning is defined as “the acquisition of knowledge or skills through study, experience, or as a result of being taught” (Oxford Dictionary). Learning involves mastery of principles, understanding and remembering factual information, acquiring procedures, techniques and approaches, recognition, reasoning, debating ideas, or developing behavior and skills appropriate to particular situations (Fry et al., 2009).

Traditional learning methods are generally teacher-directed and may not provide students with skills or deep knowledge (Udovic et al., 2002). Traditional learning methods rely mainly on lecture notes, textbooks, tutorials, laboratory-based practicals, seminars and recitation techniques. Learning through these methods are less likely