

# THE KNOWLEDGE OF MEDICAL STUDENTS AT SYSTEM PROBLEM BASED LEARNING (PBL) ABOUT USE OF NATURAL RESOURCES IN MEDICINE

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## Abstract

*Since 2004 the curriculum at the Faculty of Medicine, University of Andalas implementation education with Problem Based Learning method (PBL). In the education curriculum that consists of 21 blocks, the knowledge about the use of natural resources in the health sector given the eletif blocks / block 21. Lecture material on this block of instruction on the natural resources are given in weeks 4 through 6. Based on this study the study aims to determine the medico Traffic on the use of natural resources in the health sector. The research was conducted on all crosssectional study of 2008 medical students of the Faculty who took a course block 21 a number of 234 . Assessment is done by taking the exam elective block / block 21 on the exam material given at weeks 4 to 6. The value obtained was collected and processed manually. From the research results obtained by the student category A = 1,28 %, B = 63,67 % values, and the C =33,76% and D= 0,85 %, E = 0,01 %. Assessment of the results obtained, there is still lack of knowledge about the benefits of natural resource use by these medical students. It is still necessary to increase the knowledge of resource utilization mini style. Still low ability of medical students about the use of natural resources which can be utilized in the health field. Therefore need a more integrated dicarai methods to improve students' ability in the use of mini-style resources.*

**Keywords :** *Medical Student, PBL, Elective Block and natural resources*

## INTRODUCTION

Problem-based learning (PBL) is a method of learning where students deal with a problem first, which is then followed by the process of finding information by themselves which is known as student-centered. PBL is generally implemented in the context of a core curriculum that has been standardized and integrated between basic and clinical knowledge.

PBL's curriculum contains learning objectives, learning activities and learning evaluation which is central and integrated. The curriculum has four main components, namely: content, teaching and strategic learning, assessment processes and evaluation processes. Curriculum development is largely determined by the concept as organizational structure, processes and outcomes. Curriculum at the school on the map must show the relationship between elements in the curriculum itself.

In 2004, Faculty of Medicine UNAND fully implemented PBL, where the curriculum consists of 80% of the national curriculum and 20% of local curriculum. The purpose of learning to be a reference to create a scenario in the system block. In line with the development of medical education in Indonesia on the education side by Presidential Decree No. 43/1978 on the conservation and utilization of plants including medicinal plants, and based on the Guidelines of State Policy from 1993 to 1998, and the Health Law No. 23/1992 Director General of Public Health Development (dirjen Binkesmas) make traditional medicine training program in 12 provinces.

In implementing the PBL learning method in FK Unand 20% local content of which is a plant medicine Indonesia (TOI) is included as competence in TOI in elective block.

For the purpose of this study was to determine the medical students competence in the system PBL on the use of natural resources which are used as traditional medicine in the medical field.

## Study of Literature

Faculty of Medicine Andalas University (FK UA) has been using Competency-Based Curriculum (CBC) beginning in academic year 2004 to 2009 (KURFAK 2004) once passed by the Association for Medical Education Institutions Indonesia (AIPKI) in 2003 determined that the Faculty of Medicine in Indonesia will implement a system PBL learning gradually. Programs and competencies to be achieved in 2004 KURFAK teaching and learning strategy based on strategic plan (RESTRASIA) FK UA in 2004-2009 so as to achieve the VISION and MISSION FK UA.

### Vision and Mission of the FK UA

#### Vision:

Medical Institutions of Higher Education became a prominent and dignified, especially in the field of Tropical Medicine in Indonesia.

#### Mission:

#### 1. Education

Organizes and develops a quality education that produces a professional physician, especially in the field of Tropical Medicine as well as high moral standard.

#### 2. Research

Conducting a research in developing the science of Medical Sciences and Technology in accordance with the development of Medicine (IPTEKDOK) especially in the field of Tropical Medicine.

#### 3. Community Service

Conducting high quality community service that is based on the latest developments Medicine especially Tropical Medicine by involving the community.

This curriculum based on National Curriculum Based Competency (NCBC) of

which 80% of its components stresses 7 (seven) competention which general physician who graduated from the Faculty of Medicine in Indonesia must have and 20% local content of the core curriculum based on the vision and mission of the Faculty of Medicine Unand where the output of this curriculum is determined by three things that is Availability of Human Resources (HR) as a faculty member, availability of infrastructure such as lecture halls, libraries, laboratorium and e-library (electronic library) and the organization that manages the curriculum accordance with Guidelines 2 and 3, published by the Directorate General of Higher Education (Dirjen DIKTI) in February 2005.

Core competencies include:

1. Communication effective competence
2. Basic clinical skills competency
3. Competence of the management of health problems on individuals, families and communities
4. Competence of the application of basic biomedical science, clinical, and epidemiological behavior in the practice of family medicine
5. Competence to access, critically evaluate the validity and manage information
6. Introspective competence and lifelong learning
7. Competence of ethics, morals and professionalism in the practice

FK UA curriculum consists of 21 blocks of which 20% local content of the curriculum are elective blocks (block 21) which contains material about the competence study of traditional medicine where some material related to medicinal plants in Indonesia.

In FK UA, Teaching methods used in the implementation of learning in PBL system consists of seven forms of teaching and learning process that is

1. Tutorial
2. Lecture Introduction (KP)

3. Self-Learning
4. Basic Medical Science Practice
5. Skill Lab
6. Clerkships
  1. First Rotation
  2. Second Rotation
7. Internship

Evaluation system in the block on PBL learning method, conducted with the multiple choice (MCQ) including elective block. Where the value is the cumulative value of the tutorial, SL and MCQ exams.

### METHOD

The research was conducted by crosssectional study on all of 2008 medical students of the Faculty who take courses in block 21 as many as 234 people. Assessment is done by taking the MCQ exam only on elective block given on the exam at weeks 4th until 6th.

### RESULTS AND DISCUSSION

Assessment on elective block based on standard which use at PBL system, although not given cumulatively. On Table I shown that only 1.28% from 234 students get grade A.

**Table I. Evaluation results of MCQ competence TOI elective block**

Grade	n (Number of Student)	%
A	3	1,28
B	149	63,67
C	79	33,76
D	2	0,85
E	1	0,01

Indonesia is a country that is committed to preserving the use of wild plants and animals that exist, including medicinal plants. Management activities of plants and wildlife and medicinal plants is a series of conservation of biological

resources and ecosystem based on Undang Undang (UU) No. 5 of 1990 is the Conservation of Natural Resources and Ecosystems. Resources are abundant medicinal plants from forests is much, approximately 1200 species have been collected by the Forest Research Agency. Along with this policy preservation utilization in plants and wildlife including medicinal plants, carried out the coordination of the various institutions, including researchers at the institution. Related with that conditions, FK UA has done in preparing the curriculum to include 20% local content in some of the elective block of medicinal plants. Thus it is expected that the purpose of medical education in Indonesia to provide primary health care (primary health care) that oriented family physician.

## CONCLUSIONS

Evaluation of student knowledge about the competence of TOI is still lacking in terms of the evaluation MCQ on elective block.

## REFERENCES

- AIPKI.(2005). Core competencies of medical doctor in Indonesia
- Amin Z & Hoon Eng K. (2003) .”Basics in Medical Education”. Singapore : Word Scientific Publishing Co.Pte.Ltd
- Direktorat Jenderal Pendidikan Tinggi Departemen Pendidikan dan Kebudayaan . 1993.Kurikulum inti pendidikan dokter di Indonesia. Jakarta : DIKTI .
- Fakultas Kedokteran Universitas Andalas. 2009. Panduan Pendidikan Profesi Dokter, Padang : Percetakan dan Penerbitan Universitas Andalas.
- Konsil Kedokteran Indonesia.(2006). Kompetensi Dokter Indonesia. Jakarta: KKI .
- Pipin Permadi, (2012). Penelitian dan Pengembangan Tanaman Obat arah dan target.