



## CHAPTER I

### INTRODUCTION

There is an increasing concern that the curricula of many medical schools put too heavy an emphasis on memorization of facts and little stress on the problem solving or self-directed study skills necessary for the practice of medicine. Problem-based, self-directed learning is a teaching and learning method specifically designed to emphasize these skills and to increase the retention of facts and their recall in the clinical situation. These approach built on research into the problem-solving skills of physicians and principles of educational psychology, is employed by several medical schools and serves as an antidote to the many educational abuses seen in more traditional approach. (Howard, 1983)

Some new medical schools of which McMaster University was the first, have decided that the traditional education method can no longer serve the need of the students and have instituted radically different undergraduate medical programs that emphasize self-directed, interdisciplinary learning around patients problem. (Kennison)

In Thailand, backing up by the recommendation of the last National Medical Education Conference in 1986,

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faculty of medicine, Chulalongkorn University, with collaboration effort from the directorate of medical service of the Royal Thai Air Force (MSRTAF), is the first to operationalize the concept by establishing a third parallel track called CTPB (Community-Targeted Problem-based Curriculum). The first batch of this curriculum has already recruited since June 1988.

The five-year CTPB programme consists of three phase: The first 2.5-year phase, held at the Faculty of Medicine in Chulalongkorn Hospital, covers all basic medical sciences; the second and the third phases, emphasizing clinical sciences and skills, are supervised by the MSRTAF.

At the end of the fifth year, the students from this new track programme will take the same comprehensive examination as the other two programs. Upon graduation, CTPB student will receive the M.D. degree from the university and meet the standards for medical practitioners set by the Thai medical council.

The design of the programme is student-centered, problem-based, fully vertical integrated and community-targeted : as opposed to the teacher centered, information gathering or scattered integration, discipline-based and hospital-based with some component of community-oriented approaches of the other two existing programs.

The philosophy behind the CTPB curriculum combines "integration" (learning all related medical and clinical subjects at the same time) which encourages the students' participation in classes and increase their retention of

knowledge and "self-directed learning skill" which still more self confidence and help develop critical thinking, clinical reasoning, quick decision-making and problem-solving and willpower to continue acquiring up-to-date knowledge even after graduation.

One of the basic characteristics of the problem-based system is the students relative liberty to choose their own study topics. Students are stimulated, within certain limit, to determine the contents of their own study and to select topics which hold their interest. Consequently, the evaluation system has to be arranged in such a way that liberty is respected and that every exertion in study activities of an individual students is reinforced by the system. (Sprooten & Van der Vienten, cited by Kenk, 1990) How can we develop an evaluation method which allows for differences between learning activities on one hand, and which give a fair estimation of the quality of learning outcome on the other?

This study is intended to develop a diagnostic instrument to identify the student deficiencies, weakness or problem and to locate the source of difficulty. This test will be the criterion-referenced test that based on criteria set by the Thai medical council.

Evaluation is a process through which a value judgment or decision is made from a variety of observations and from the background and training of the evaluator. No matter how good tests may be, someone must interpret test results and decide upon the course of action that can best help the students. Before any far-reaching decision is made,

as much relevant information as possible about the student should be gathered. (Gilbert, 1990)

Those who administer tests or use other observational devices expect that measurements derived from them will be helpful in making decisions. These decisions not only often determine whether a curriculum or teaching method will be maintained, modified, or eliminated, but also indicate the extent to which students are making satisfactory progress. Knowing what kind of instrument to construct or recommend for a given purpose yields more accurate data from which more appropriate decision can be made.

What kinds of information about student development are most likely to be of use to faculty and administrators? If these practitioners are to develop effective short-and long-term strategies for their colleges and students, they must have a theory of how students learn, of what facilitates or inhibit students' educational development. (Maryann, Alexander and Frank, 1987) Evaluation data are most likely to influence decision making when top administrators and researchers agree on the goals of the institution and the goals of the assessment and perceive information about outcomes as an important source of feedback about organization effectiveness. (Weiss and Bucuvals, 1977)

From these all rationales, the main objective of this study is to use diagnostic examination with feedback information as an instrument to identify student discrepancy and weakness and to determine the strategies for educational improvement.

## Objective of the study



The main objective of the study is to use diagnostic examination with feedback information as an instrument to identify student discrepancy and weakness for the purpose of educational improvement.

Specific aims are:

1. To develop a tool used for diagnostic purpose of cognitive competency in surgery
2. To examine the students present discrepancy in term of three educational objectives for cognitive domain: Recall , Interpretation and Problem solving
3. To address the consequences or effects of diagnostic test on student plans to improve their own ability
4. To collect the opinion of faculty staffs and administrators or policy makers on educational development.

## Expected benefit of the study

The researcher expect that this study can indicate what is really going on in the CTPB medical programme, whether and why the students do or do not achieve according to the expectation of the programme and what is the sources of weakness of the students and the programme from the view point of three groups : students, faculty staffs and administrators.

This may lead to :

1. Guidelines for developing of diagnostic instrument.

2. New hypotheses for educational research.

3. Recommendation for policy and strategic plannings in order to improve the quality of the curriculum.

### Summary

In this chapter, an introduction to the problem as well as objective of the study and expected benefit of the study have been presented. In chapter II, an over view of relevant literature will be provided. Methodological aspects of the investigation will be found in chapter III, followed in chapter IV by a report of research finding. Discussion and conclusion as well as recommendation for further study will be presented in chapter V.