## CHAPTER I



## INTRODUCTION

## Background and Rationale

In the Fourth National Economic and Social Development Plan, the Thai government realized the necessity to increase the number of dentists in order to meet the need of the country. Therefore, on 23 november 1980, the Faculty of Dentistry of Khon Kaen University, the fourth oldest school of dentistry in Thailand was established in order to meet the following objectives.

- To solve the problem related to the shortage of dentists especially in North Eastern region of Thailand.
  - 2. To be the research center for oral disease.
- 3. To provide dental health services for patients in North Eastern region.
- 4. To coordinate dental health personnel in conducting research and education in oral disease.

It was an institution for education, service, research, and promotion of Thai culture and Fine Arts. In the beginning, the curriculum was divided into 2 steps. The first step was the curriculum for bechelor degree of science (dentistry) which required four years of study. The second step was the curriculum for doctor of dental surgery (D.D.S) which was a programme for continuing education. The

dental student had to work in the public official government for two years and returned to study in the Faculty for two years before graduate. However, in 1983, the curriculum was changed into a six years course in order to be in line with the curriculum of the other institutions. The first class of 30 dental students were enrolled in May 1980. (60% selected from the students in North Eastern region and 40% selected from entrance examination). Throughout its ten years of history, the enrollment of dental students has increased from 30 up to 80.

Dental Education of Faculty of Dentistry consists of theory and clinical practicum. The clinical practicum is the important part of the study in dentistry because the dental students have to treat the actual patients by using the knowledge from the theory and almost all of the clinical practicum subjects are in the last two years courses before graduation. Therefore, clinical practicum achievemment attracts the attention of all those involved in dental education. The administrators as well as teachers, are concerned about student performance as it reflects on their various areas of interest. Special interest has been given to factors which may be predictive of clinical practicum achievement. The goal is to use such information in improving the clinical practicum and also the instruction.

Many studies of psychologists and educators showed that there were two factors related to success or failure of

the students. The first was intellective factors and the second was nonintellective factors such as, attitude, study habits, interest, school environment, and home environment etc. Maddox (1963) studied and found that the learning achievenment did not depend only on the personal ability and hard work, but it also depended on the efficient method of studying.

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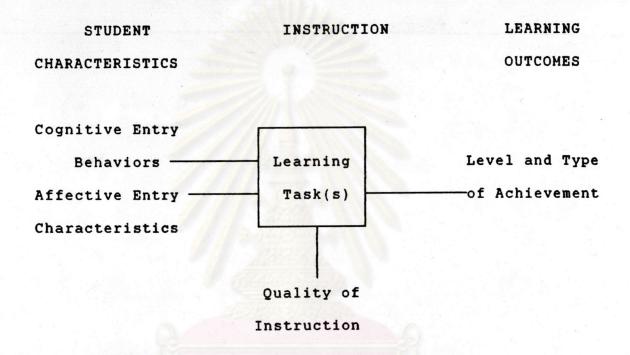
Klausmeier (1985) found that student characteristics affected an individual's readiness to start a particular learning task, his progress in learning tasks, and the upper limits he may reach. More specifically the student characteristics were the important variables that affect The student characteristics their achievement. were cognitive abilities and related characteristics, psychomotor related characteristics, affective abilities and characteristics, family and socioeconomic status, and sex.

From the theory of school learning by Bloom, (1982) there are three independent variables related to achievement as the following.

- a. The extent to which the student has already learned the basic prerequisites to the learning to be accomplished.
- b. The extent to which the student is (or can be) motivated to engage in the learning process.
- c. The extent to which the instruction to be given is appropriate to the learner.

More specifically, the theory deals with student characteristics, instruction, and learning outcomes (see the following figure 1.1)

Figure 1.1 Theory of School Learning



One of the student characteristics which is believed to be central in determining student learning is the student's Cognitive Entry Behaviors. It is the prerequisite learning held to be necessary for the learning tasks on which instruction is to be provided. The second characteristic is the Affective Entry Characteristics. It is the student's motivation to learn the new learning tasks, such as habits, attitude, interest.

The instructional variables of greatest importance is believed to be the Quality of Instruction. It is the



extent to which the cues, practice, and reinforcement of the learning are appropriate to the needs of the learner.

For Cognitive Entry Behaviors, the investigator selected past academic grade of the students as the variable that represented their intellegence and it was the prerequisite knowledge.

For Affective Entry Characteristics, the investigator was interested in their study habits and attitudes.

For the Quality of Instruction, the investigator used opinion of the students on instruction to assess the quality of instruction.

Moreover, the researcher was also interested in sex and socioeconomic status as the variables in the student characteristic factors.

From all the reasons, the investigator selected some variables expected to be the predictors of clincal practicum achievement in this study as the following.

- 1. The student characteristic factors
  - past academic grade
  - study habits and attitudes
  - sex
  - socioeconomic status

## 2. The instruction factors

- opinion on instruction such as; content, learning activities, evaluation, teacher, and learning facilities.

Finally, it is a responsibility of dental educators to review student achievement predictors from time to time in order to identify the formation of patterns which may influence them to success or failure. Moreover, no one has studied the clinical practicum achievement predictors of Thai dental education before.

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