

CHAPTER III



RESEARCH DESIGN OVERVIEW

Correlational research attempts to investigate the possible relationships among variables without trying to influence those variables. Although correlational studies cannot determine the cause of relationships, they can suggest them. These suggestions often provide the impetus for future experimental studies. (Fraenkel and Wallen, 1990)

Numerous correlational and prediction studies were conducted concerning with determining the extent of relationship existing between variables. Correlation techniques are particularly useful in making prediction. If it is known that there is a correlation between two variables, then it can be predicted from one variable to another. The strength of the relationship between two variables is given by computing coefficient of correlation. This is a useful tool for describing the magnitude and the direction of relationship. (Ary, D. et al, 1979)

Justification of the Study

The prediction of academic achievement at both the school and university level has been the primary concern of many researchers. A number of prediction research has been based on the association between many variables. The prediction studies variation depend on the nature of the

population under study and number and type of independent and dependent variables. Therefore, it is generally necessary to prepare separate prediction equations for different school.

There is no evidence of study on factors related to clinical practicum achievement of dental students. This study has been undertaken to investigate the predictor variables related to prediction. It may be helpful and useful to serve as a baseline data for further correlational studies in dental education. It is hoped that it may help the administrators as well as teachers to improve the educational management and instruction based on the empirical data.

Research Questions

This study is designed to answer the following questions.

1. Do the following variables of the student characteristic factors and the instruction factors relate to clinical practicum achievement of dental students of Khon Kaen University ?

- The student characteristic factors

Past academic grade

Study habits and attitudes

Sex

Socioeconomic status

- The instruction factors

Opinion on instruction with regard to
content

learning activities

evaluation

teacher

learning facilities

2. What is the strength of association among these variables and clinical practicum achievement ?

Research Objectives

The followings are the objectives of proposed study.

1. To determine relationships among the student characteristic factors, the instruction factors, and clinical practicum achievement of dental students of Khon Kaen University.

2. To determine the strength of association among these factors and clinical practicum achievement of the students.

3. To give recommendation based on sound research data to the administrators and teachers in improving the clinical practicum achievement and also the instruction.

Overview of the Study Design

This study is a correlational research design to clarify the relationships between student characteristic factors, instruction factors, and clinical practicum

achievement of dental student. The intention of this design is to determine the magnitude of diagram of the study design is presented in figure 3.1

The target population is the sixth year dental students of Khon Kaen University, who met the inclusion and exclusion criteria. The population sampled and the sample are all the sixth year dental students of Khon Kaen University in academic year 1991. This study concerns with the clinical practicum achievement only. Thus, the time of collecting data should be after students finish all the clinical practicum subjects and it is at the end of the first semester. The instruments used in data collection are survey form of study habits and attitudes, questionnaire for sex and socioeconomic status, questionnaire for opinion on instruction, and reviewing of score record. The outcome measurement are divided into 2 groups. The first is independent variables with regard to past academic grade (The 4th year and the 5th year cumulative grade), study habits and attitudes, sex and socioeconomic status, and opinion on instruction. The second is dependent variables with regard to the 6th year clinical practicum grade and the 6th year cumulative clinical practicum grade of every departments and average all the departments. Data have been coded to assure confidentiality of information. Stepwise multiple regression was employed for data analysis.

Design Justification

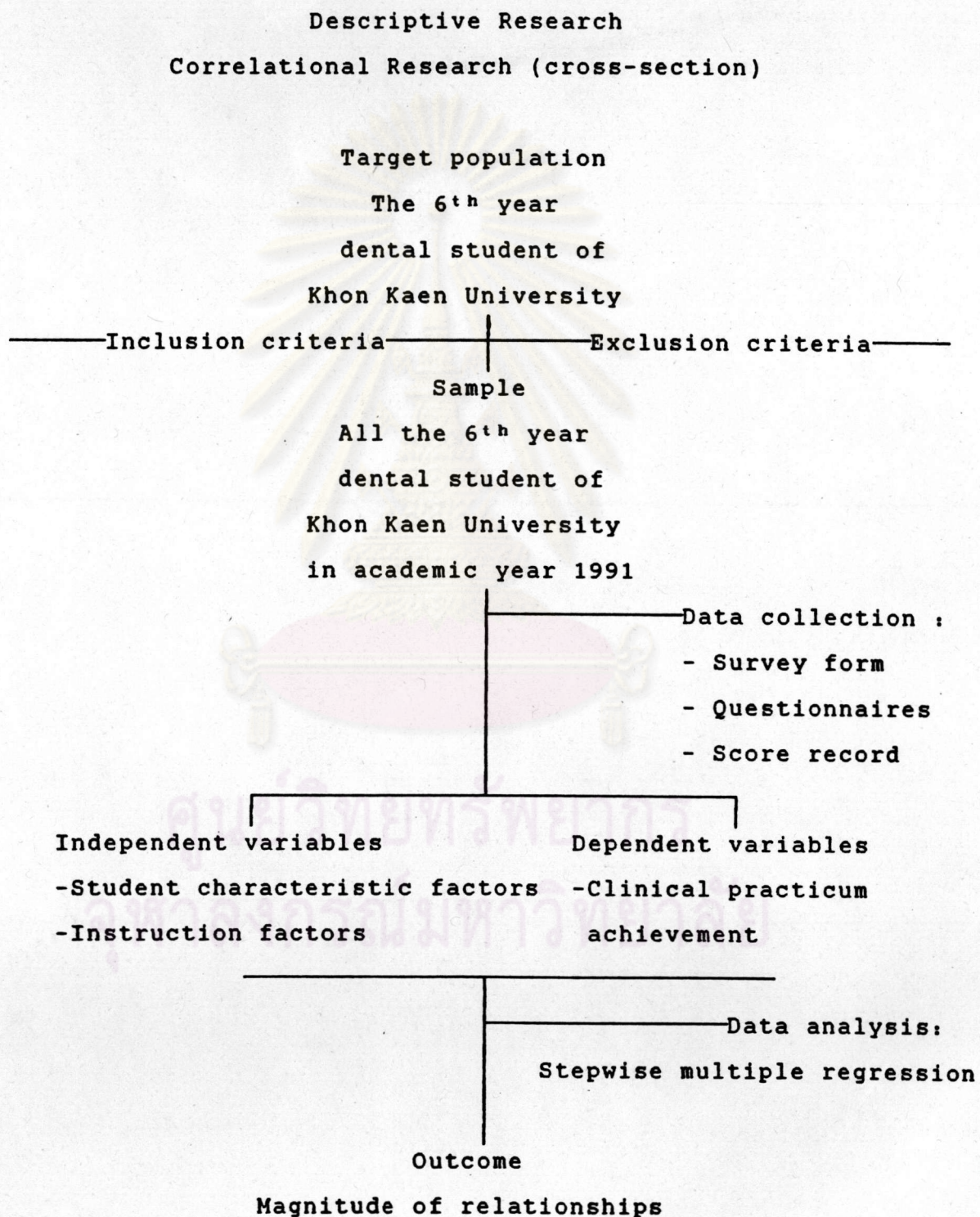
Correlational research is an example of what is sometimes called associational research. In associational research, the relationships among two or more variables are studied without any attempt to influence them. In their simplest form, correlational studies investigate the possibility of relationship between only two variables, although investigations of more than two variables are common. In contrast to experimental research, however, there is no manipulation of variables in correlational research. (Fraenkel, 1990)

Correlational research is also sometimes referred to as a form of descriptive research because it describes an existing relationship between variables. The way it describes this relationship, however, is quite different from the descriptions found in other types of studies. A correlational study describes the degree to which two or more quantitative variables are related, and it does so by use of a correlation coefficient.

Correlational research is carried out for one of two basic purposes-either to help explain important human behaviors or to predict likely outcomes.

(Figure 3.1)

DIAGRAM OF STUDY DESIGN



As stated before, this study is a correlational design that has been considered the standard and is appropriate to answer the stated research questions. The research questions demand the clarification of the relationship between the student characteristic factors, instruction factors, and clinical practicum achievement of dental students. For this reason, this design is only suitable to clarify relationship and prediction of variables through the use of multiple correlation coefficients. This study design permits measuring a number of variables and their relationships simultaneously. Prediction is also possible based on association between variables being studied. It only identifies what goes with what. It does not necessarily identify cause and effect relationship.

When a correlation is found to exist between two variables, it means that scores within a certain range on the one variable are associated with a certain range on the other variable. A positive correlation means high scores on the one variable tend to be associated with high scores on the other variable, while low scores on the one are associated with low scores on the other. A negative correlation, on the other hand, means high scores on the one variable are associated with low scores on the other variable, and low scores on the one are associated with high scores on the other.

The correlational research is appropriate where objectives are to achieve some degree of prediction and when there is a need to discover a relationship. Therefore, it seems logical to take the view that the correlational research is justifiable.



ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย