



OVERDUE FINES:

25¢ per day per item

RETURNING LIBRARY MATERIALS:

Place in book return to remove
charge from circulation records

--	--

A STUDY OF ATTITUDES OF FACULTY-OF-EDUCATION STUDENTS
IN SELECTED THAI UNIVERSITIES TOWARD THE
TEACHING PROFESSION

By

Chanita Rukspollmuang

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Secondary Education and Curriculum

1980

ABSTRACT

A STUDY OF ATTITUDES OF FACULTY-OF-EDUCATION STUDENTS IN SELECTED THAI UNIVERSITIES TOWARD THE TEACHING PROFESSION

By

Chanita Rukspollmuang

The attitudes of students enrolled in Faculties of Education in selected Thai universities toward the teaching profession were investigated. The study comprised two parts. The descriptive portion was an attempt to analyze the factors that influenced attitudes toward the teaching profession. The predictive aspect of the study was concerned with the factors that can be used to predict such attitudes.

The population of the study was the undergraduate students enrolled in Faculties of Education in selected government universities during the 1979 academic year. The sample contained 1,405 students.

The Attitude Toward the Teaching Profession scale, constructed by the Research Department of the Faculty of Education, Chulalongkorn University, was used to measure the attitudes of the students in this study.

Three statistical techniques were used. One-way analysis of variance was employed to measure the factors that produce the differences in the attitudes toward the teaching profession. The Pearson product-moment correlation coefficient was computed to find the

relationship between variables. Multiple regression analysis was employed to analyze the predictors of such attitudes. The significance level was set at .05 for all the analyses.

In general, findings of the study revealed favorable attitudes toward the teaching profession. However, the students responded negatively toward the slow professional progress in the teaching profession, the low salary for teachers, and the characteristics of teaching they believed to be hard, routine, unenjoyable, and unexciting. Also, a majority of the students indicated that teaching made one a fussy and negative person. The results of analysis of variance and Pearson product-moment correlations indicated that the factors that produced the differences and/or were related to attitudes toward the teaching profession were age, gross provincial product (GPP) of the community of birth and residence, parents' occupation, parents' ethnic group, university attended, class level, academic program, types of primary and secondary schools, location in terms of GPP of primary and secondary schools, intention to become a teacher after graduation, whether the students attended a teacher training college, whether the students believed and complied with the referent group (father, mother, relative, teacher, and/or friend) in selecting a future profession, and the selection of desirable choices in the Joint Higher Education Entrance Examination, which included rank of Faculty of Education selected as well as the selected first-choice faculty and university.

Seven variables were found to have a predictive value on attitudes toward the teaching profession. Of these variables, only two--namely, the intention to become a teacher after graduation and

grade point average (GPA)--were of practical use. The intention to become a teacher was found to be the best single predictor of attitudes toward the profession.

Finally, it was recommended that attitudes toward the teaching profession could be included in the selection of applicants for admission to a faculty of education, but not as the sole criterion for screening. The attitudes and/or intention to become a teacher after graduation that could be examined indirectly by the selection of desirable choices in the Entrance Examination could be included in the interviewing process, another screening device presently used to select applicants for admission to the faculty of education.

ACKNOWLEDGMENTS

I wish to express my sincere appreciation to the many people who have contributed to the completion of this study. I want to thank my doctoral committee chairman and major professor, Dr. David K. Heenan, for his encouragement, inspiration, and guidance, which enabled me to complete my education. I also acknowledge the assistance of the other members of my doctoral committee, Dr. Walter F. Johnson, Dr. Louise M. Sause, and Dr. James W. Costar, for their comments and constructive criticisms.

Deep gratitude is extended to Dr. Sippanondha Ketudat, Minister of Education of Thailand and Secretary-General of the National Education Commission, for being the dissertation co-director and for assisting in all phases of the study. Special appreciation is extended to Dr. Vichian Gatesingha, Dr. Gerald W. Fry, Miss Pongsri Limchaichana, and other staff members of the National Education Commission for their enthusiastic assistance with this study.

Finally, I wish to dedicate this dissertation to my beloved father, the late Lt. Gen. Narong Salirathavibhaga and my mother, Mrs. Sobhabhan, without whose inspiration and support my education at Michigan State University would not have been possible; to my husband, Dr. Sutus Rukspollmuang, for his patience and encouragement throughout the study; and to my dear son, Dawin, whose arrival has given a whole new meaning to my life.

TABLE OF CONTENTS

	Page
LIST OF TABLES	v
LIST OF FIGURES	viii
 Chapter	
I. THE PROBLEM	1
Introduction	1
A Brief Historical Background of Teacher Training in Thailand	5
Statement of the Problem	8
Purpose of the Study	13
Research Objectives	13
Research Hypotheses	16
Limitations of the Study	18
Definition of Terms	19
Overview	23
II. REVIEW OF THE LITERATURE	26
Introduction	26
The Nature of Attitudes	26
The Formation of Attitudes	28
Research on Attitudes Toward the Teaching Profession and Related Areas	30
Summary of Variables Under Study	34
III. DESIGN AND METHODOLOGY OF THE STUDY	44
Introduction	44
Design of the Study	44
Population of the Study	45
Sample of the Study	46
Research Instrument: The Attitude Toward the Teaching Profession Scale (ATTP)	47
Data Collection	60
Data-Analysis Procedures	61

Chapter	Page
IV. PRESENTATION AND ANALYSIS OF DATA	66
Introduction	66
Education Students' Beliefs About the Character-	
istics of a Profession	66
Descriptive Study	86
Predictive Study	121
V. SUMMARY, FINDINGS, AND CONCLUSIONS	135
Introduction	135
Summary of the Study	135
Conclusion	138
APPENDICES	140
A. COVER LETTERS	141
B. CHARACTERISTICS OF THE EDUCATION STUDENTS IN THE	
SAMPLE	145
C. THAI AND ENGLISH VERSIONS OF THE QUESTIONNAIRE	153
D. MULTIPLE CLASSIFICATION ANALYSIS TABLES	169
E. RANK OF COMMUNITIES ACCORDING TO GROSS PROVINCIAL	
PRODUCT (GPP) AT THE CURRENT MARKET PRICE IN 1978 . . .	186
SELECTED BIBLIOGRAPHY	189

LIST OF TABLES

Table	Page
1. Number of Candidates by Ranges of M.S. 5 Scores and Successful Candidates' Order of Choice of Faculties . .	11
2. Number of Undergraduate Students in Education in Four Selected Universities, Academic Year 1978	46
3. Size of Expected Sample of the Study, by University and Class Level	49
4. Size of the Actual Sample of the Study, by University and Class Level	49
5. Number of Male Students in the Sample by University and Class Level	50
6. Number of Female Students in the Sample, by University and Class Level	50
7. Education Students' Beliefs About the Characteristics of Any Profession	68
8. Education Students' Stated Beliefs About the Teaching Profession	70
9. Summary Data on the Attitudes Toward the Teaching Profession of Education Students in the Study Sample .	72
10. Attitudes Toward the Teaching Profession, According to Students' Characteristics and Backgrounds	79
11. Subjective Norms (Referent Group) of the Education Students	85
12. Summary Table for ANOVA Tests	96
13. Results of the Multiple-Range Comparison of Fathers' Ethnic Groups	98
14. Results of the Multiple-Range Comparison of Types of Communities (GPP) of Students' Birthplaces	99

Table	Page
15. Results of the Multiple-Range Comparison of Types of Communities of the Place of Longest Residence . . .	101
16. Results of the Multiple-Range Comparison of the Regions of Longest Residence	102
17. Results of the Multiple-Range Comparison of Universities Attended	103
18. Results of the Multiple-Range Comparison of Class Levels on the University	104
19. Results of the Multiple-Range Comparison of Academic Programs in the University	105
20. Results of the Multiple-Range Comparison of Students' Grade Point Averages	106
21. Results of the Multiple-Range Comparison of Types of Communities of Primary Schools	107
22. Results of the Multiple-Range Comparison of the Ranking of the Faculty of Education in the Entrance Examination	108
23. Results of the Multiple-Range Comparison of the Level of Definiteness of Intention to Become a Teacher . . .	109
24. Results of the Multiple-Range Comparison of Students Who Had Attended and Had Not Attended a Teacher Training College	110
25. Results of the Multiple-Range Comparison of the First-Choice Faculty Selected in the Entrance Examination	111
26. Results of the Multiple-Range Comparison of First-Choice Universities Selected in the Entrance Examination	112
27. Results of the Multiple-Range Comparison of Subjective-Norm Levels	113
28. Pearson Product-Moment Correlation Matrix	117
29. Relationship Between Selected Personal Characteristic and Background Factors of Education Students and Their Attitudes Toward the Teaching Profession	118

Table		Page
30.	Simple Bivariate Correlation for Multiple Regression Analysis, Showing the Relationship Between Personal Characteristic and Background Factors of Education Students and Attitudes Toward the Teaching Profession	124
31.	Intercorrelation Matrix for Multiple Regression Analysis	128
32.	Summary Table of Multiple Regression Analysis Showing Factors That Influence Attitudes Toward the Teaching Profession	132

LIST OF FIGURES

Figure	Page
1. Organization of Teacher Training Agencies	9
2. Multistage Sampling Procedure Used in the Study	48
3. Schematic Presentation of Conceptual Framework Relating Beliefs, Attitudes, Intentions, and Behaviors With Respect to a Given Object	53

CHAPTER I

THE PROBLEM

Introduction

Buddhism has been embodied deeply in the educational system of Thailand for many centuries. In this philosophy of education, the ideal teacher is the Lord Buddha himself. His disciples, the monks, have taken the roles of teaching and intellectual leadership as a regular part of their lives. Even after the reign of King Rama V (1896-1910), when public education was initially provided, the monks made up a large contingent of the teachers. The monasteries and temples have played an important role by implanting respect for teachers in their students, and this has brought prestige to the teaching profession.

Especially after World War II, Thai social institutions--family, government, religion, education, and economics--have changed from the traditions that have shaped the country for centuries. The education function has, for the most part, moved from the temples to the schools. The various tasks that once were performed by the monks have been largely assumed by relatively new social institutions. As more teachers graduate from the school system, they are assuming the teaching role that was once relegated to the monks. Education is not regarded solely as something to enhance an individual's life. In a society in which one earns his living by working in a job that requires

some degree of literacy and skills for success, education is a necessity. Children are urged to strive to become important people, to be leaders, to gain the prestige, honor, and fame that can be achieved through formal schooling. The task of preparing the younger generations for life has become more the task of the school than of the parents and the home. Hence the role of the teacher has increased in importance. Teachers are important persons in the lives of the younger generation, and teacher training has become an important key to the development of the educational system of the country.

During the past three decades, Thailand focused on producing an increased number of graduates in education so that there would be enough qualified teachers in the country. Teacher training colleges were expanded and upgraded to produce more graduates at the bachelor's-degree level. In the higher educational institutions, the faculties of education provided more seats for applicants, and some graduate programs were offered. In the 1970s, because of the oversupply of graduates in education, teacher unemployment, low salaries, and the quality of teachers were crucial issues in the Thai educational system. Teachers' salaries have not kept pace with the increased cost of living. They vary according to a teacher's qualifications, training, length of service, and position of responsibility. Usually, elementary and secondary school teachers who have a low level of training receive minimum pay. The teacher's income places him in the lower middle class. These factors may indeed affect Thai attitudes toward the teaching profession.

Since 1962, secondary school graduates who want to continue their studies in a government university are required to take the Joint Higher Education Entrance Examination (JHEEE). Applicants are asked to choose up to six faculties in which they would like to study. A research study conducted in 1977 showed that many students (27.4%) selected the faculty of education as their sixth choice, the last possible choice in the Entrance Examination. Moreover, the study also showed that many of these graduates did not enter the teaching profession.¹

Recently, the Department of Teacher Training reported that students trained in education may not have favorable attitudes toward the teaching profession. This is demonstrated by their tendency to change their field of study and, upon graduation, their refusal to teach in the villages or to put their knowledge and training into practice, which would help upgrade the teaching profession.² The issue was summed up by the Department of Teacher Training, which stated that one of the problems in teacher training is to produce graduates who will have favorable attitudes toward the teaching profession.³

In Thailand, education, in general, receives approximately 20% of the national budget. At the higher education level, government universities depend financially on the national budget. Government sources furnish about 88% of the total income of the government universities.

The field of study that has had the greatest growth rate in terms of student enrollment is education.⁴ Between 1966 and 1974, the number of students enrolled in education increased 27.4%.

But dropouts and unemployment have become important problems in the training of prospective teachers. According to the Office of University Affairs, during the years from 1964 to 1974, of all the various fields of study, the faculty of education had the highest dropout rate: 6.5% at Silpakorn University, 13.9% at the Patoomwan campus of Srinakharinwirot University, and 17.1% at the Prasarnmitr campus of Srinakharinwirot University.⁵ As for unemployment, the unemployment rate for graduates rose from 18% in 1973 to 48% in 1974 because of the surplus of graduates in teacher education.⁶ According to the Office of University Affairs, 13.8% of the university graduates trained in education were unemployed in 1974.⁷

Another persistent problem at the higher education level is the high value placed on any kind of university education. Even though the majority of the students intend to make good use of the knowledge they gain at the university, some students only want to get a degree so that they will have high social status. Many of the graduates in education do not intend to become teachers after graduation.⁸ General Prapart Charusatara made the following statement concerning teacher training: "The government invests a large sum of its national budget in teacher training. Thus, we should not allow those who do not wish to enter the teaching profession to study in the institution. To do so is a great loss to the educational system."⁹

These issues indicate the need for improvements and changes in the field of education. In the 1977 seminar, "The New Approach to Teacher Training," sponsored by the Department of Teacher Training and the National Education Commission at Chulaburi, it was recommended that

attitudes toward the teaching profession be considered as one element in the screening of applicants for teacher training. It was also suggested that a more sophisticated method should be used to screen applicants for the faculty of education, such as accepting only those students who intend to become teachers after graduation. Another suggestion was that while these students are studying in the university, good attitudes toward the teaching profession should be enforced.¹⁰

Since 1977, the Thai government has instituted a policy of taking into account attitudes toward the teaching profession as another means of screening applicants for education and teacher training. Also, the government encourages and supports the study and research on current attitudes and the pattern of changing attitudes toward the teaching profession, as well as the construction of inventories to measure such attitudes.

A Brief Historical Background of Teacher Training in Thailand

Until the nineteenth century, education was centered in the temples and the palace. Boys were sent to study the three R's with the Buddhist monks. Girls learned housework in their homes. The first formal school was set up by King Rama V in 1871 to train students to be government officers. The Department of Education was established in 1887 and five years later became known as the Ministry of Education. In those days, the task of teacher training was the responsibility of the Department of Primary Education, which is now known as the Department of General Education. The first teacher training school was founded in Bangkok in 1892. About 20 years later, a teacher training

school for girls was established to prepare teachers for the outlying areas. At the beginning, teacher training was centered in Bangkok. Later, the Department of Primary Education instituted a policy to expand teacher training to the provincial areas.

Graduates from the teacher training schools in the late nineteenth and early twentieth centuries became teachers in the elementary schools. After Chulalongkorn University was established in 1916, there was an effort to upgrade teacher qualifications. The university then offered courses leading to a Diploma of Education around 1930.

To respond to the need and demand for qualified teachers, the teacher training program was expanded. The work began with the expansion of the existing teachers' colleges as well as the establishment of new ones. In 1954, the Department of Teacher Training was established in the Ministry of Education. On September 16, 1954, the College of Education of Prasarnmitr College (now known as Srinakharinwirot University), a degree-granting institution, was established to prepare teachers for the upper secondary schools. This was the first time a four-year program for a baccalaureate degree in education was offered.

As a result of another reorganization of the Department of Teacher Training in early 1973, the College of Education and its eight branches were grouped to form a university under the Office of University Affairs.

At present, the task of teacher training is the responsibility of:

1. the Office of University Affairs, which is responsible for the training of teachers in faculties of education in the higher education institutions; and

2. the Department of Teacher Training, the Department of Vocational Education, the Department of Physical Education, and the Department of Fine Arts in the Ministry of Education, which are responsible for the training of teachers in the teachers' colleges.

The four departments in the Ministry of Education are responsible for preparing teachers at the following levels:

1. the Certificate level: two years' training after passing the lower secondary school. Graduates will be able to teach in elementary schools.

2. the Diploma or Higher Certificate in Education level: two years' further training after the certificate level, or two years after the pre-university courses, that is, the upper secondary school. Graduates will be able to teach in secondary schools.

3. the Bachelor's-Degree level: two years' further training after the diploma level. It was not until recently that teachers' colleges offered courses leading to this level.

The Office of University Affairs is responsible for the preparation of teachers in the following degree levels:

1. the Bachelor's-Degree level: two years' further training after the diploma level, or four years after the certificate level or after the pre-university course. The students are enrolled in faculties of education.

2. the Graduate Diploma level: one year's training after the bachelor's degree. The students specialize in one area of study.

3. the Master of Education level: two years' training after the bachelor's degree.

4. Doctor of Philosophy: a new program that requires three years' training after the master's degree. This program is offered at Srinakharinwirot University and Chulalongkorn University.

The organization of the teacher training agencies is presented in Figure 1.

The objectives of training are:

1. to prepare prospective teachers to meet the qualitative and quantitative needs at various levels in the field of education;
2. to train prospective teachers to have both the professional and personal qualifications needed for the profession, that is, a person who knows the subject matter thoroughly and has the personal qualities suitable to a teacher; and
3. to organize and supervise in-service training programs for teachers who are already employed, as well as to conduct qualifying examinations for those who wish to upgrade their academic and professional status.

Graduates are expected to be intellectual academicians, competent researchers, and teachers with good professional attitudes.

Statement of the Problem

As mentioned before, to enter any of the government universities, students are required to take the Joint Higher Education Entrance Examination (JHEEE), and in some faculties an interview is required. In completing the application form, students are allowed to select up to six faculties in which they would like to study. The JHEEE scores indicate in which faculty the student will be accepted. A considerable

Teacher Training Agencies

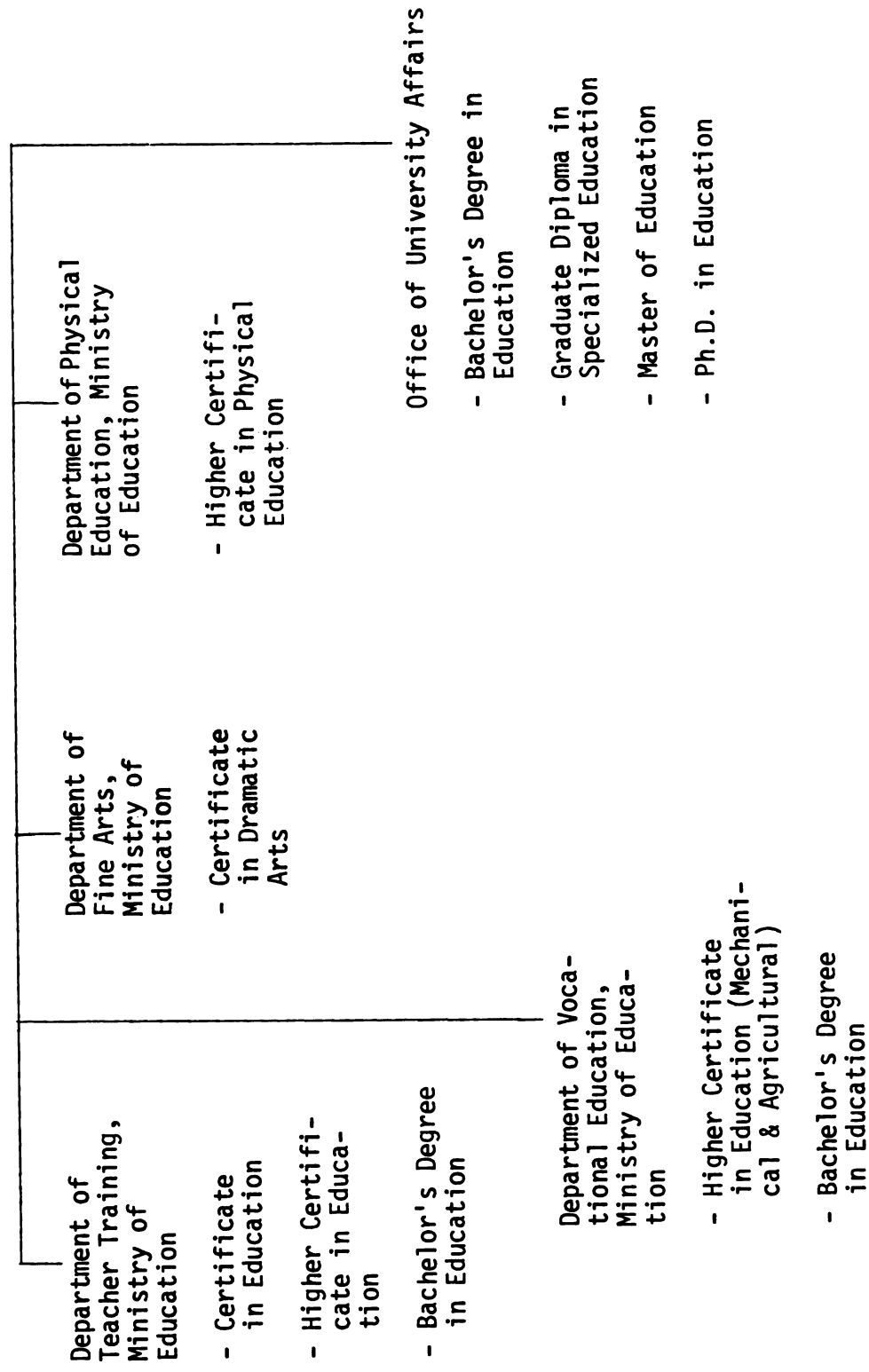


Figure 1.--Organization of teacher training agencies.

number of students can not enroll in their first-choice or most desired faculty. (See Table 1.) In this study, the students enrolled in the faculties of education generally had selected the faculty as their sixth or least-desirable faculty. Yet, they are expected to become good teachers and to have favorable attitudes toward the profession after completing their education. Besides, these students tend to be those who did not receive good grades in secondary school.¹¹ Their weak academic background and uninspired attitudes toward the teaching profession create serious problems in the teacher training programs.

The role of attitudes has been recognized as important because it is believed to be related to effective teaching and other factors, such as student academic performance and achievement (Brembeck, 1966; Taddeo, 1977); students' perceptions, academic behavior, self-concept, and beliefs (Pinkney, 1977); and students' general behaviors (Unruh, 1977). Allport (1935), Rosenberg (1960), and Sorenson (1964) wrote that an individual's attitudes are formed by his experiences and surroundings. Therefore, students from different socioeconomic and educational backgrounds, and with unique personal characteristics, are likely to hold different attitudes toward any given subject.

Moreover, attitude toward the teaching profession is one indicator of teacher qualification. It seems that good teachers should have a favorable attitude toward the profession. The degree to which one holds favorable or unfavorable attitudes toward the teaching profession may be affected by his family background and economic status, the area of the country in which he resides, the ethnic group to which he belongs, the type and quality of education he receives, his sex, and

Table 1.--Number of candidates by ranges of M.S. 5 scores and successful candidates' order of choice of faculties.

Successful Candidates	Ranges of M.S. 5 Score (%)									
	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-100	
1st choice	2,472	87	220	285	330	309	261	160	40	1
2nd choice	1,733	109	208	264	238	184	112	35	3	-
3rd choice	2,014	101	229	341	251	212	98	13	-	1
4th choice	1,879	141	243	288	233	195	62	7	1	-
5th choice	1,824	161	255	316	250	133	61	5	1	-
6th choice	1,704	203	272	282	172	98	26	2	2	-
Total	11,626	802	1,427	1,776	1,474	1,131	620	222	47	2

Source: Report on the Joint Higher Education Entrance Examination, Academic Year 1976-1977 (Bangkok: Office of University Affairs, 1978).

many other factors beyond his control. It would be beneficial to know what factors influence and/or could be predictors of attitudes toward the teaching profession. This information would be useful in selecting applicants for the Faculty of Education, so that the graduates will be the ones most likely to contribute their knowledge and skills to the profession and to the development of the country.

A considerable amount of research, including both survey and comparative studies, has been done on attitudes toward the teaching profession. Many factors such as sex and social-class level have been found to be related to and/or produce differences in attitudes. However, in each study, only a few variables were introduced, and, so far, no attempt has been made to study the predictors of such attitudes.

A central theme of the present study, then, is to investigate the attitudes of students in selected Thai universities toward the teaching profession. A study of currently enrolled students in Faculties of Education and an analysis of the characteristics and backgrounds that are related to such attitudes may reveal the pattern of attitudes toward the teaching profession of these prospective teachers and the factors that affect their attitudes. Also, the researcher will analyze predictors of the attitudes with the ultimate goal of seeing if attitudes toward the teaching profession would be an appropriate addition to the screening process.

Conclusions and recommendations will be drawn for educational planners and university personnel concerning the pattern and

determinants of attitudes toward the teaching profession and the screening of applicants for faculties of education.

Purpose of the Study

This study differs from previous studies in that it is both descriptive and predictive. The general purpose is to investigate attitudes toward the teaching profession of students presently enrolled in Faculties of Education in selected Thai universities. Many personal characteristic, socioeconomic background, and educational background variables are introduced to study their possible influence on attitudes. The descriptive portion of the study is intended to reveal the factors that produce differences in, or are related to, attitudes toward the teaching profession. In the predictive part, predictors of the attitudes are analyzed.

In sum, the investigator will attempt to answer the following questions:

1. What are the attitudes toward the teaching profession of students in the Faculty of Education?
2. What factors have an influence on attitudes toward the teaching profession?
3. What are the predictors of attitudes toward the teaching profession?

Research Objectives

The following are the objectives of the study:

1. To measure the differences in attitudes toward the teaching profession of education students with different personal characteristics and backgrounds:

- 1.1 Sex
- 1.2 Age
- 1.3 University attended
- 1.4 Class level
- 1.5 Academic program
- 1.6 First-choice faculty selected in the Entrance Examination
- 1.7 First choice university selected in the Entrance Examination
- 1.8 Rank of Faculty of Education selected in the Entrance Examination
- 1.9 Intention to become a teacher
- 1.10 Attendance at a teacher training college
- 1.11 M.S. 5 (M.6) percentage on the secondary-school-leaving examination
- 1.12 Grade point average (GPA) in university
- 1.13 Type of primary school attended
- 1.14 Type of secondary school attended
- 1.15 Type of community (GPP) in which the primary school is located
- 1.16 Type of community (GPP) in which the secondary school is located
- 1.17 Region where the secondary school is situated
- 1.18 Type of community (GPP) in which the student was born
- 1.19 Region of the student's birthplace
- 1.20 Type of community (GPP) in which the student had the longest residence
- 1.21 Region of longest residence
- 1.22 Family size
- 1.23 Birth order in the family
- 1.24 Father's ethnic group
- 1.25 Mother's ethnic group
- 1.26 Father's education

- 1.27 Mother's education
- 1.28 Father's occupation
- 1.29 Mother's occupation
- 1.30 Family income
- 1.31 Student's subjective norms (referrent group) in the selection of a future profession

2. To analyze the relationship between attitudes toward the teaching profession and the following continuous variables:

- 2.1 Student's age
- 2.2 Class level or years in the university
- 2.3 Rank of Faculty of Education selected in the Entrance Examination
- 2.4 Degree of intention to become a teacher
- 2.5 M.S. 5 or M.6 percentage on the secondary-school-leaving examination
- 2.6 Grade point average in the university
- 2.7 Type of community (rank of GPP) in which the primary school is located
- 2.8 Type of community (rank of GPP) in which the secondary school is located
- 2.9 Type of community (rank of GPP) in which the student was born
- 2.10 Type of community (rank of GPP) of the longest residence
- 2.11 Family size
- 2.12 Birth order in the family
- 2.13 Father's educational level
- 2.14 Mother's educational level
- 2.15 Family income
- 2.16 Level of subjective norms (referrent group)

3. To analyze the factors in Objective 1 that might be predictors of attitudes toward the teaching profession.

The first two objectives are for descriptive purposes, in attempting to describe the factors that influence attitudes toward the teaching profession. The third objective is for predictive purposes.

Research Hypotheses

Research hypotheses were formulated to test the differences in personal characteristics, socioeconomic backgrounds, educational backgrounds, and other selected factors among the students. The following are the research hypothesis tested by analysis of variance (ANOVA):

Personal Characteristics

- H₁: There are differences in attitudes toward the teaching profession between male students and female students.
- H₂: There are differences in attitudes toward the teaching profession among students of different age groups.
- H₃: There are differences in attitudes toward the teaching profession among students of different birth order in the family.

Socioeconomic Background

- H₄: There are differences in attitudes toward the teaching profession among students who come from different-sized families.
- H₅: There are differences in attitudes toward the teaching profession among students whose families have different income levels.
- H₆: There are differences in attitudes toward the teaching profession among students whose fathers have different occupations.
- H₇: There are differences in attitudes toward the teaching profession among students whose mothers have different occupations.
- H₈: There are differences in attitudes toward the teaching profession among students whose fathers finished different educational levels.
- H₉: There are differences in attitudes toward the teaching profession among students whose mothers finished different educational levels.

- H₁₀: There are differences in attitudes toward the teaching profession among students whose fathers are in different ethnic groups.
- H₁₁: There are differences in attitudes toward the teaching profession among students whose mothers are in different ethnic groups.
- H₁₂: There are differences in attitudes toward the teaching profession among students who were born in different types of communities (GPP).
- H₁₃: There are differences in attitudes toward the teaching profession among students who were born in different regions.
- H₁₄: There are differences in attitudes toward the teaching profession among students who spent the longest time in different types of communities (GPP).
- H₁₅: There are differences in attitudes toward the teaching profession among students who spent the longest time in different regions.

Educational Background

- H₁₆: There are differences in attitudes toward the teaching profession among students who attend different universities.
- H₁₇: There are differences in attitudes toward the teaching profession among students who are in different years (class levels) in the university.
- H₁₈: There are differences in attitudes toward the teaching profession among students who are studying in different academic programs.
- H₁₉: There are differences in attitudes toward the teaching profession among students who received different percentages on the M.S. 5 or M.6 (grade 12) school-leaving examination.
- H₂₀: There are differences in attitudes toward the teaching profession among students who received different grade point averages in the university.
- H₂₁: There are differences in attitudes toward the teaching profession among students who graduated from different types of primary schools.

- H₂₂: There are differences in attitudes toward the teaching profession among students who graduated from different types of secondary schools.
- H₂₃: There are differences in attitudes toward the teaching profession among students whose primary schools are in different types of communities (GPP).
- H₂₄: There are differences in attitudes toward the teaching profession among students whose secondary schools are in different types of communities (GPP).
- H₂₅: There are differences in attitudes toward the teaching profession among students whose secondary schools are in different regions.

Other Selected Factors

- H₂₆: There are differences in attitudes toward the teaching profession among students who ranked the Faculty of Education as different choices in the Entrance Examination.
- H₂₇: There are differences in attitudes toward the teaching profession among students whose levels of definiteness of intention to become a teacher are different.
- H₂₈: There are differences in attitudes toward the teaching profession among students who had attended a teacher training college and those who had not attended.
- H₂₉: There are differences in attitudes toward the teaching profession among students who selected different faculties as their first choice in the Entrance Examination.
- H₃₀: There are differences in attitudes toward the teaching profession among students who selected different universities as their first choice in the Entrance Examination.
- H₃₁: There are differences in attitudes toward the teaching profession between students with high subjective-norm levels and those with low subjective-norm levels.

Limitations of the Study

The study involved the students enrolled in faculties of education of selected government universities. The findings may be applied only to these universities or other institutions that have

similar characteristics. Moreover, the findings may not be interpreted in terms of cause and effect. Generalization of the findings must be done with caution. The characteristics of students and the socio-economic as well as educational background factors used in this study were selected from the review of literature and logical hypotheses. Other factors such as institutional characteristics, i.e., class size and qualifications of staff and teachers, may or may not have a bearing on attitudes toward the teaching profession, but such possibilities were beyond the scope of the present study. The instrument selected for the research, the Attitude Toward the Teaching Profession scale (ATTP scale), was developed in 1978. The first attempt to use that instrument was undertaken in this study.

Definition of Terms

The following key terms are defined in the context in which they are used in this dissertation:

Attitude: An individual's stated feelings and beliefs about, and predisposition to act in a certain way toward, certain abstract and/or concrete objects.

Attitude toward the teaching profession: Measured by scores obtained on the Attitude Toward the Teaching Profession scale.

Teaching profession: An instructional activity that reflects the following features of a profession: (1) A profession is a vocation or a calling. It implies not only academic achievement and scholarship but also devotion to one's work. (2) A profession has well-defined functions. The function of the teaching profession is to promote the

education and well-being of students. (3) A profession lays down minimum requirements for entry: educational qualifications, previous experience, and practical skills. (4) A profession exercises discipline over its members and is usually free from outside interference or domination. (5) A profession tries to raise the economic and social standing of its members. (6) A profession is built on the concept of an intellectual discipline within a learned society, with members organized for the common good and the advancement of the profession (World Confederation of Organization of the Teaching Profession, 1963).

Belief: An opinion, expectation, or judgment. A belief is a pattern of meanings--the totality of an individual's cognition about a particular thing. All beliefs about an object contain both an affective and an evaluative aspect.

Subjective norms: Belief of an individual that the referent groups, which are father, mother, relative, teacher, and/or friend, think he/she should become a teacher and/or a tendency to follow the advice of the referent groups in selecting a future profession.

Referent groups: The persons an individual refers to in selecting a future profession. In this study, the referent groups included father, mother, relative, teacher, and/or friend.

University: A tertiary educational institution with an enabling act and department status. The fields of study in a Thai university may not be as broad as those in other countries. This study was concerned only with the government universities that come under the jurisdiction of the Office of University Affairs.

Faculty: An academic unit within a university, normally composed of several departments with related academic disciplines, e.g., Faculty of Science, Faculty of Engineering, Faculty of Education. Each faculty is headed by a dean.

Academic program of study: A professional training program in a faculty of a university, e.g., Early Childhood Education or Elementary Education in the Faculty of Education.

A number of Thai organizations are also referred to in this dissertation. They are as follows:

Office of the Prime Minister: A governing body under the Prime Minister. Its many departments and offices perform staff functions in formulating plans and policies and in coordination.

Office of the National Education Commission (NEC): A governmental agency with the duty of formulating long-term educational policies and plans, and coordinating all types and levels of education. It has department status under the Office of the Prime Minister.

National Economic and Social Development Board (NESDB): A governmental agency charged with formulating social and economic development plans. It has department status under the Office of the Prime Minister. Similar to the NEC, it has an executive committee and a council.

Office of University Affairs: A ministry concerned primarily with higher education (but not all higher education comes under this ministry) and headed by a minister.

Teacher Training College: A government college that prepares prospective teachers at the diploma, certificate, and bachelor's-degree

levels. A Secondary Education Certificate and a Certificate in Education for four- or two-year curriculum are required for admission.

Teachers' Council: A nongovernmental body created by legislative action, which formulates, regulates, and controls personnel administration of all government teachers. Its governing committee is headed by the Minister of Education. The Teachers' Council deals not only with personnel administration but also with teachers' professional ethics, standards, and rights.

The following terms are defined according to the way in which they are used in Thailand:

Primary or elementary school: According to the revised 1977 National Scheme of Education, primary school is equivalent to Pratom (grades) 1-6. In the 1960 National Scheme of Education, primary school referred to Pratom 1-7. The latter designation pertains to those who graduated from primary school before 1977.

Pratom (P): School year or grade; six years of elementary education according to the 1977 National Scheme of Education or seven years of schooling according to the 1960 National Scheme.

Secondary school: According to the 1977 National Scheme of Education, the secondary-school level is divided into (a) lower secondary school: Matayom (M) 1-3 or grades 7-9; and (b) upper secondary school: M. 4-6 or grades 10-12. For those who graduated before 1977, the lower secondary school is equivalent to Matayom Suksa (M.S.) 1-3 or grades 8-10, and the upper secondary school is equivalent to M.S. 4-5 or grades 11-12.

Matayom Suksa (M.S.): Five years of secondary education, according to the 1960 National Scheme of Education. In the 1977 National Scheme, the name was changed to Matayom, which refers to six years of secondary education.

Joint Higher Education Entrance Examination (JHEEE): The selection device now used to screen applications for admission to the public Thai universities.

Baht: Thai currency unit. Approximately 20 baht equal one U.S. dollar.

Overview

Chapter I contained an introduction to the study, a brief discussion of teacher training in Thailand, a statement of the problem, and purposes of the study. Also delineated were the objectives and research hypotheses, the limitations of the study, and definitions of terms used in the dissertation.

Literature relevant to the study is reviewed in Chapter II. This includes a brief summary of writings on attitudes and their formation, as well as related research on attitudes toward the teaching profession.

In Chapter III the design and methodology of the study are described. Included in this chapter are the population and sample, the instrument, and data-collection and data-analysis procedures used in the research.

The research findings are presented in Chapter IV. The results of responses to the Attitude Toward the Teaching Profession Scale,

ANOVA tables, data from Pearson product-moment correlation coefficients, and results of the multiple-regression analyses are discussed.

Chapter V begins with a summary of the findings and ends with conclusions and suggestions for further study.

Notes--Chapter I

¹National Education Commission, "Follow-Up Study of Teacher Training" (Bangkok, 1976), p. 1. (In Thai.)

²Department of Teacher Training, Ministry of Education, "Report of Seminar in Teacher Training, 8-17 November 1978." (In Thai.)

³Department of Teacher Training, Ministry of Education, "Report of the Symposium on Education, 3-7 February 1975 at Lumpang." (In Thai.)

⁴Sippanondha Ketudat, Wichit Srisa-an et al., Systems of Higher Education: Thailand (New York: International Council for Education Development, 1978), p. 63.

⁵Ibid., p. 100.

⁶National Education Commission, "Higher Education in Thailand" (Bangkok, October 1977), p. 8.

⁷Ketudat, Srisa-an et al., p. 64.

⁸National Education Commission, "Teacher Training in University," report of a seminar on teacher training in Thailand (Bangkok, 1972), p. S-2. (In Thai.)

⁹General Prapart Churusatera, "Some Viewpoints on Education," in Column Sri-sod, Thai Rath Newspaper (Bangkok), 19 August 1972.

¹⁰Pinyo Sathorn, Principles of Education (Bangkok: Supa Publishing Co., 1978), p. 309. (In Thai.)

¹¹National Education Commission, "Teacher Training in University," p. S-8.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

The literature and research reports reviewed here are reported under four subject headings. First is a review of the nature of attitudes, followed by research on the formation of attitudes. The third section is a review of research done on attitudes toward the teaching profession. The chapter ends with a summary of variables drawn from the review of literature.

The Nature of Attitudes

Psychologists have not agreed completely on a definition of attitudes. Two different theories on attitudes exist: the cognitive or consistency theory and the behavioral theory. Proponents of the former theory define attitude as a "predisposition" to behavior or a "readiness to respond"; those who support the latter theory view attitude as a behavior and define it as a response.

Allport preferred to define attitudes as "a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related."¹ Campbell regarded an individual's social attitude as an enduring syndrome of response consistency with regard to a set of social objects.² Cronbach regarded it

as meanings one associates with a certain object that influence his acceptance of it."³ For Katz and Scotland, "an attitude is a tendency or disposition to evaluate an object or the symbol of that object in a certain way."⁴ Newcomb suggested a more comprehensive definition of attitudes. He wrote, "An individual's attitude toward something is his predisposition to perform, perceive, think, and feel in relation to it."⁵

Among the behaviorists, Doob suggested that an attitude be defined as an implicit, drive-producing response, considered socially significant in the individual's society.⁶ Another strong supporter of the behavioral definition was Green, who emphasized that an attitude does not refer to any one specific act or response, but is an abstraction from a large number of related acts or responses. He termed an attitude "a consistency among responses to a specified set of stimuli or social objects."⁷ Fishbein viewed attitude as learned, mediating evaluative responses and beliefs about an object. He wrote, "An attitude may be characterized as a 'mediating evaluative response,' that is, as a learned implicit response that varies in intensity and tends to 'mediate' or guide an individual's more overt evaluative responses to an object or concept."⁸ Guttman defined attitude as a "delimited totality of behavior with respect to something."⁹

Some research efforts have been concerned with the direction of attitudes. Rokeach stated that attitude is a relatively enduring organization of beliefs about an object or situation, predisposing one to respond in some preferential manner.¹⁰ Bogardus viewed an attitude as a tendency to act toward or against some environmental

factor, which becomes thereby a positive or negative value.¹¹

Thurstone defined attitude as the amount of affect for or against a psychological object.¹²

In general, attitudes are viewed to have three interrelated components. Krech and Crutchfield defined attitude as "an enduring organization of motivational, emotional, perceptual and cognitive processes with respect to some aspect of the individual's world."¹³

In 1962, Krech, Crutchfield, and Ballachy stated that the person's feelings, cognitions, and action tendencies "become mutually interdependent." They wrote, "The individual's cognitions are influenced by his feelings and action tendencies toward the object and therefore, a change in his cognitions about the object would tend to produce change in his feelings and attitude tendencies toward it."¹⁴ Rosenberg and Hovland also stated that "attitudes are predispositions to respond to some class of stimuli with certain classes of responses and designate the three major types of responses as cognitive, affective and behavioral."¹⁵ Fishbein also emphasized the point, stating that "with respect to any object, an individual has a positive, negative, or neutral attitude; that is, there is a mediating evaluative response associated with every stimulus."¹⁶

The Formation of Attitudes

Allport suggested four common conditions for the formation of attitudes. According to him, attitudes are built through (a) the accretion of experience, that is, through the integration of numerous specific responses of a similar type; (b) individualization,

differentiation, or segregation of response and conduct; (c) dramatic experience or trauma; and (d) the imitation of parents, teachers, and/or playmates.¹⁷ Theorists generally agree with Allport's belief that attitudes are learned through experience. Rosenberg wrote that attitudes and beliefs are learned as a result of specific experiences, communication from other people, observation of the behavior of models, and institutional factors such as school.¹⁸

Sorenson wrote that attitudes develop in a number of ways:

1. from the attitudes expressed in the home, school, church, peer groups, and other places;
2. from the ideas, facts, and attitudes expressed in books, movies, radio, and television;
3. from experiences, in terms of how pleasant or unpleasant they are;
4. from a person's status in relation to others--his personal relativity; and
5. from self- or ego involvement. This is related to Item 4 but is more comprehensive.¹⁹

Duijker also indicated that attitudes are dependent on a large variety of factors, such as age, sex, status, education, information, propaganda, language, and political, social, economical, geographical, and climatological circumstances.²⁰ Other writers have also agreed that attitudes are learned from culture; from primary groups such as parents, teachers, and peer groups as well as close associates; and from internalized norms, education, propaganda, and personal experiences.^{21,22,23}

In his study on attitudes toward education and the physically disabled in 11 nations, Jordan indicated that four classes of variables seem to be important determinants, correlates, and/or predictors of attitudes: (a) demographic factors, such as age, sex, and income; (b) socio-psychological factors, i.e., a person's value structure; (c) contact with the object, such as amount, nature, perceived voluntariness, and enjoyment of the contact; and (d) the knowledge factor, that is, the amount of factual information one has about the attitude object.²⁴

Research on Attitudes Toward the Teaching Profession and Related Areas

A few research studies have been conducted in Thailand on attitudes toward the teaching profession. In general, it was found that students liked the teaching profession. The profession was viewed as being important to the society, even though it required much sacrifice and patience.²⁵ Pongchai reported that students gave the following main reasons for becoming a teacher:

1. a preference for teaching,
2. a desire for a simple life, and
3. a recognition of teaching as a respectful profession.²⁶

Mori concluded that the motivation for becoming a teacher was the result of two factors: the individual's attitudes toward the occupational values of teaching and his self-concept of his needs for becoming a teacher.²⁷ The following were reported to be the occupational values preferred by Thai students:

1. social services,
2. independence and high responsibility,
3. opportunity to study social problems,
4. security,
5. enough free time to do one's own activities,
6. salary,
7. professional advancement,
8. respect, and
9. prestige.²⁸

Despite the students' preference for the teaching profession, some of them were discouraged by the tasks that are boring and routine, the low salary, and the lack of housing and health centers. This finding was confirmed by Boonwanich²⁹ and Chinchomb.³⁰

The majority of students chose to study in the faculties of education on their own.^{31,32} However, a study conducted at Kwon Kaen University in 1973 reported that while they were studying, students in the faculty of education were less satisfied with their selected profession than were students in other faculties.³³ Also, a study at Chiang Mai University concluded that the Faculty of Education was given less importance by students than were other faculties.³⁴ Most of the students indicated that they had selected the faculty in the Entrance Examination to ensure themselves a place in a university. The result was supported in a study done in 1977, which showed that many of the students (27.38%) selected the Faculty of Education as their sixth or least desirable choice.³⁵

Furthermore, several researchers have examined the relationship between professional training experiences and favorable attitudes toward the teaching profession. Students indicated that they wanted more to be teachers after the student-teaching experience than before the experience.^{36,37,38} Also, years of training has been found to affect attitudes. Brim used the MTAI to measure the attitudes of students at a Denver university. He found that the students who were graduating had more favorable attitudes toward children than did those who had just entered the teacher training program.³⁹

In Thailand, Rungsiyokrit found a significant difference in attitudes toward the teaching profession between students working for the Certificate of Education and those working for the Certificate of Elementary Teacher Education.⁴⁰ It was found that there was not a positive relationship between years in the university and attitudes toward the teaching profession. Higher-level students (juniors and seniors) had less favorable attitudes than did lower-level students (freshmen and sophomores).⁴¹ In a comparison of the attitudes of secondary school teachers and senior students in education who were training at Chulalongkorn University and Prasarnmitr College, the results attested to the fact that the former had significantly more favorable attitudes than did the latter ($p < .05$).⁴²

In a study of attitudes toward the teaching profession of students enrolled in the Faculty of Education at Chulalongkorn University, it was found that years in the university affected the attitudes of both female and male students. Female students had the most favorable attitudes toward the teaching profession during their

sophomore year. In the junior and senior years, they became less favorable toward the profession. Male students had increasingly more favorable attitudes in their first, second, and third years in the university, whereas their attitudes became less favorable in the fourth year. No significant differences in attitudes toward the teaching profession were found among freshman, junior, and senior students.⁴³

Lasharojana found that not all of the education students intended to become teachers after they graduated. Almost half of the students, of whom most were males, indicated they did not intend to become teachers after graduation. Moreover, only one-tenth of all students showed a great personal pride in becoming a teacher.⁴⁴ Other Thai researchers have found that whereas the students intended to become teachers, some of them refused to go back to teach in their hometowns in the provincial areas.^{45,46}

Assavachin reported that at Chulalongkorn University, only 48% of the junior students and 56% of the senior students in the Faculty of Education said they thought their teachers were satisfied with the teaching profession.⁴⁷

Another investigation of the differences in attitudes toward the teaching profession among students in faculties of education from eight higher education institutions under the Office of University Affairs found that female students had more favorable attitudes than did male students, students from Bangkok had more favorable attitudes than did those from outside Bangkok, students who had selected the faculty of education as their first choice in the Entrance Examination

had more favorable attitudes than did those for whom the faculty of education was a less-preferred choice, and students from small families had more favorable attitudes than did those from large families. In that study, no significant differences in attitudes were found between students of different ages and different paternal occupations.⁴⁸

Chinsomboon et al. found no significant differences in attitudes between male and female students at Chulalongkorn University. Attitudes toward the teaching profession have been found to be related to grade point average,⁴⁹ self-discipline,⁵⁰ and success in teaching.⁵¹

Finally, studies on the attitudes of teachers with different backgrounds have found a significant difference between those with and without a bachelor's degree,⁵² those whose major was guidance and those with majors in other areas,⁵³ male and female teachers, age ranges, grade level preferred to teach, and income per month. No significant differences have been found between variations in teachers' level of education, grade level actually taught, years of teaching, and location of the schools.⁵⁴

Summary of Variables Under Study

Dependent Variable

The dependent variable of this study was attitude toward the teaching profession, as measured by the Attitude Toward the Teaching Profession Scale (ATTP scale). The mean of the scores obtained on the ATTP scale was used to divide the students into two groups:

those with low-level attitude (0-mean) and those with high-level attitude (mean-the highest score obtained).

Independent Variables

From the review of literature and logical assumptions, the following were selected as the independent variables of the study:

1. Personal characteristics, which included
 - a. student's sex,
 - b. student's age, and
 - c. student's birth order in the family.

Age and sex are variables commonly used in attitudinal studies. The researcher hypothesized that birth order is related to attitude toward the teaching profession. The oldest children in the family may have to assume many responsibilities for their younger siblings and may thus aspire to a profession other than teaching.

2. Socioeconomic background, which included
 - a. family size,
 - b. family income,
 - c. father's occupation,
 - d. mother's occupation,
 - e. father's education,
 - f. mother's education,
 - g. father's ethnic group,
 - h. mother's ethnic group,
 - i. type of community in which the student was born,
 - j. region of the student's birthplace,

- k. type of community of the student's longest residence,
and
- l. region of the student's longest residence.

Duijker stated that geographical factors are related to attitudes as the result of internalization of the local attitudes and culture.⁵⁵ Birthplace and place of the longest residence were selected as geographical factors. Parents' occupation and family income are the economic factors indicated by Duijker. Parents' education and their ethnic group are related indirectly to the attitudes expressed at home, according to Sorenson.⁵⁶ Size of family is related indirectly to family income, which may or may not be related to the attitudes of family members.

- 3. Educational background, which included
 - a. university the student attends,
 - b. class level or year in the university,
 - c. academic program,
 - d. percentage on the M.S. 5 or the secondary-school-leaving examination,
 - e. grade point average in the university,
 - f. type of primary school attended,
 - g. type of secondary school attended,
 - h. type of community in which the primary school is located,
 - i. type of community in which the secondary school is located, and
 - j. region in which the secondary school is located.

The university the students attend, primary school attended, and secondary school attended were regarded by Rosenberg and Hovland as institutional factors.⁵⁷ Also, type and location of primary and secondary school affect the quality of education the student receives and provide different experiences that may or may not affect a student's attitudes. In addition, GPA and M.S. 5 leaving-examination scores give insight into the student's pleasant or unpleasant experiences in school. A study has shown that GPA is related to attitude toward the teaching profession, as is student's academic major. Class level reveals years of training in the university.

4. Other selected factors, which included
 - a. rank of Faculty of Education selected in the Entrance Examination,
 - b. firmness of intention to become a teacher after graduation,
 - c. first-choice faculty selected in the Entrance Examination,
 - d. first-choice university selected in the Entrance Examination,
 - e. whether the student had attended a teacher training college, and
6. subjective norms (referent groups) of the student.

The student's subjective norms represent the internalized norms cited as one factor in the formation of attitudes. The students who attended a teacher training college before studying at the university receive more years of professional training and are more familiar

with the profession than students who have not attended a teacher's college. Rank of faculty of education, first-choice faculty, and university selected in the Entrance Examination indicate the intention of the student to study in the faculty of education. The intention to become a teacher after graduation was selected because it is believed to be related to attitude toward the teaching profession.

Notes--Chapter II

¹G. W. Allport, "Attitudes," in A Handbook of Social Psychology, ed. C. A. Murchison (Worcester, Mass.: Clark University Press, 1935), p. 810.

²D. T. Campbell, "The Indirect Assessment of Social Attitudes," Psychological Bulletin 47 (1950): 31.

³L. J. Cronbach, Educational Psychology (New York: Harcourt, Brace, and World, 1963), p. 435.

⁴D. Katz and E. Scotland, "A Preliminary Statement to a Theory of Attitude Structure and Change," in Psychology: A Study of a Science, ed. S. Koch (New York: McGraw-Hill, 1959), p. 420.

⁵T. M. Newcomb, Social Psychology (New York: Dryden Press, 1950), p. 118.

⁶L. W. Doob, "The Behavior of Attitudes," Psychological Review 54 (1947): 135.

⁷B. F. Green, "Attitude Measurement," in Handbook of Social Psychology, ed. G. Lindzey (Reading, Mass.: Addison-Wesley, 1959), p. 335.

⁸M. Fishbein, Readings in Attitude Theory and Measurement (New York: John Wiley & Sons, Inc., 1967), p. 390.

⁹L. Guttman, "The Problem of Attitudes and Opinion Measurement," in Measurement and Prediction, ed. S. A. Stauffer (Princeton: Princeton University Press, 1950), p. 51.

¹⁰M. Rokeach, "Attitude Change and Behavior Change," Public Opinion Quarterly 30 (1966): 530.

¹¹E. S. Bogardus, Fundamentals of Social Psychology (New York: Century Press, 1931), p. 52.

¹²L. L. Thurstone, "The Measurement of Social Attitudes," Journal of Abnormal Social Psychology 26 (1932): 249.

¹³D. Krech and R. S. Crutchfield, Theory and Problems of Social Psychology (New York: McGraw-Hill Book Company, 1948), p. 152.

¹⁴D. Krech and R. S. Crutchfield, Individual in Society (New York: McGraw-Hill Book Company, 1962), pp. 139-40.

¹⁵M. Rosenberg and C. I. Hovland, Attitude Organization and Change: An Analysis of Consistency Among Attitude Components (New Haven: Yale University Press, 1960), p. 3.

- ¹⁶Fishbein, Readings in Attitude Theory and Measurement, p. 389.
- ¹⁷Allport, "Attitudes," pp. 810-14.
- ¹⁸Rosenberg and Hovland, Attitude Organization and Change, p. 130.
- ¹⁹H. Sorenson, Psychology in Education (New York: McGraw-Hill Book Company, 1964), p. 123.
- ²⁰H. C. Duijker, "Comparative Research in Social Science With Special Reference to Attitude Research," International Social Science Bulletin (UNESCO) 7 (1955): 559.
- ²¹J. Wilson, M. C. Robech, and W. B. Michael, Psychological Foundation of Learning and Teaching (New York: McGraw-Hill Book Company, 1969), p. 336.
- ²²C. T. Morgan and R. A. King, Introduction to Psychology (New York: McGraw-Hill Book Company, 1966), p. 594.
- ²³R. N. Haber and A. H. Fried, An Introduction to Psychology (New York: Holt, Rinehart, and Winston, Inc., 1975), pp. 671-702.
- ²⁴J. E. Jordan, Attitudes Toward Education and Physically Disabled Persons in Eleven Nations (East Lansing: Latin American Studies Center, Michigan State University, 1968), p. 96.
- ²⁵Nangnoy Tittiranondha, "A Survey of Opinions About the Teaching Profession of Students for the Higher Certificate in Education in Educational Region I in Academic Year 1964" (Bachelor's thesis, Chulalongkorn University, 1965), p. 35. (In Thai.)
- ²⁶Wanida Pongchai, "Attitudes of Male Teachers Toward the Teaching Profession" (Bachelor's thesis, Chulalongkorn University, 1967), p. 45. (In Thai.)
- ²⁷Takako Mori, "Analysis of Factors Influencing Motivations for Becoming a Teacher," Journal of Educational Research 60 (December 1966): 174-79.
- ²⁸Somboon Salayacheevin, "A Study of Occupational Values and Attitudes of Freshman Students in Khon Kaen University in Academic Year 1975," Abstracts of Research Related to Education (Bangkok: National Education Commission, 1979), pp. 34-35. (In Thai.)
- ²⁹Vatjana Boonvanich, "A Survey of Opinions About the Teaching Profession of Students for the Certificate in Education in Educational Region V in Academic Year 1964" (Bachelor's thesis, Chulalongkorn University, 1965), p. 69. (In Thai.)

³⁰Suthin Chinchomb, "A Survey of the Opinions of Teacher Students Toward the Teaching Profession" (Bachelor's thesis, Chulalongkorn University, 1966), p. 39. (In Thai.)

³¹Seri Lasharajana, "The Attitudes of Fourth Year Students at the College of Education--Prasarn Mittr, Patoomwan, and Bangsaen--Towards the Teaching Profession and Courses in Education in the Year 1962" (Master's thesis, Prasarn Mittr, 1963), p. 138. (In Thai.)

³²Boonvanich, "Survey of Opinions About the Teaching Profession," p. 67.

³³Salayacheevin, "Study of Occupational Values and Attitudes," p. 35.

³⁴Faculty of Education, Chiang Mai University, "A Study of the Reasons and Motivations for Choosing Faculty of Education and Attitudes Toward the Teaching Profession of Freshman Students in Academic Year 1977," Journal of Research Abstracts 4 (Bangkok: Research Registration Division, National Research Council, 1978), p. 20. (In Thai.)

³⁵Utoporn Thongutai and Puaengkaew Poonyakanoke, "A Research Report on the Interviewing Process Based on the Data From the Measurement of the Teaching Attitude Inventory" (Chulalongkorn University, 1977), p. 18. (In Thai.)

³⁶Boonvanich, "Survey of Opinions About the Teaching Profession," p. 68.

³⁷E. E. Lipscomb, "A Study of the Attitudes of Student Teachers in Elementary Education," Journal of Educational Research 60 (December 1966): 163.

³⁸Chinchomb, "Survey of the Opinions of Teacher Students," p. 39.

³⁹B. J. Brim, "Attitude Change in Teacher Education Students," Journal of Educational Research 59 (August 1966): 441-45.

⁴⁰Aree Rungsoyokrit, "A Comparative Study of Attitudes Toward the Teaching Profession of Student Teachers at the Level of Certificate of Education (Paw Kaw Saw) and Certificate of Elementary Teacher Education (Paw Paw), Academic Year 1969" (Master's thesis, Prasarn Mittr, 1970), pp. 46-47. (In Thai.)

⁴¹Samruay McKhanorn, "Changing Attitudes Toward the Teaching Profession of Faculty of Education Students" (Master's thesis, Chulalongkorn University, 1973), p. 90. (In Thai.)

⁴²Nuanchan Timwong, "A Comparative Study of Attitudes of Teachers and Prospective Teachers Toward the Teaching Profession" (Master's thesis, Chulalongkorn University, 1968), p. 62. (In Thai.)

⁴³Duangporn Chinsomboon, Wipa Kesornsirichareon, and Supachai Kanchanavasee, "Measurement of Attitudes Toward the Teaching Profession of Education Students in the Faculty of Education, Chulalongkorn University" (unpublished research report, Chulalongkorn University, 1976), p. 26. (In Thai.)

⁴⁴Lasharajana, "Attitudes of Fourth Year Students," p. 139.

⁴⁵Tittiranondh, "Survey of Opinions About the Teaching Profession," p. 36.

⁴⁶Chinchomb, "Survey of the Opinions of Teacher Students," p. 50.

⁴⁷Tassanee Assavachin, "Education Students' Attitudes Toward the Study in the Faculty of Education" (Bachelor's thesis, Chulalongkorn University, 1967), p. 9. (In Thai.)

⁴⁸Thongutai and Poonyakanoke, "Research Report on the Interviewing Process," p. 43.

⁴⁹Chinsomboon et al., "Measurement of Attitudes," p. 25.

⁵⁰Sommai Grajanglikit, "A Comparative Study of the Attitudes Before and After Practice Teaching Toward the Student Teaching Programs of the College of Education, Prasarn Mittr, Academic Year 1970" (Master's thesis, Prasarn Mittr, 1971), pp. 41-42. (In Thai.)

⁵¹Wannipa Thong-ngok, "The Relationship Between Attitudes Toward the Teaching Profession, Self-discipline and Achievement in Teaching and Learning of Student Teachers in the College of Education, Pitsunulok" (Master's thesis, Prasarn Mittr, 1974), p. 58. (In Thai.)

⁵²Timwong, "Comparative Study of Attitudes of Teachers," p. 63.

⁵³Tida Boonyanyaew, "A Comparative Study of Attitudes of Master's Degree Teachers in Guidance and Master's Degree Teachers in Other Academic Programs Toward the Teaching Profession" (Master's thesis, Prasarn Mittr, 1974), p. 53. (In Thai.)

⁵⁴Thongutai and Poonyakanoke, "Research Report on the Interviewing Process," pp. 21-22.

⁵⁵Duijker, "Comparative Research in Social Science."

⁵⁶Sorenson, Psychology in Education.

⁵⁷Rosenberg and Hovland, Attitude Organization and Change.

CHAPTER III

DESIGN AND METHODOLOGY OF THE STUDY

Introduction

In this chapter, the selection of the population and sample for the study, the instrument used in the research, procedures for data collection, and statistical treatment used in the study are discussed.

Design of the Study

The study was designed to investigate attitudes toward the teaching profession of students presently enrolled in Faculties of Education in selected Thai universities. The investigation had both descriptive and predictive aspects. The investigator attempted to describe factors that influence attitudes toward the teaching profession and the predictors of those attitudes.

The purposes of the study were to answer three research questions:

1. What are the attitudes of students in the Faculty of Education toward the teaching profession?
2. What factors have an influence on attitudes toward the teaching profession?
3. What are the predictors of attitudes toward the teaching profession?

Population of the Study

The population of this study was the students enrolled in the Faculties of Education in four selected universities--Chulalongkorn, Kasetsart, Silpakorn, and the Prasarnmitr campus of Srinakharinwiroj--during the 1979-80 academic year. All four universities are government institutions under the control of the Office of University Affairs. The main campus of each school is located in Bangkok. Although the Faculty of Education of Silpakorn University is located in Nakorn Pathom, its main administration building is in Bangkok. Also, the community of the Nakorn Pathom campus and those in Bangkok are quite similar. The Prasarnmitr campus was selected to represent Srinakharinwiroj University because (a) it is the oldest of all the campuses of this university, (b) it is comparable in terms of campus size and enrollment to the other three universities, and (c) its main administration building is in Bangkok.

The reasons for choosing these four universities were as follows:

1. to enter these institutions, students have to take the Joint Higher Education Entrance Examination (JHEEE);
2. they are all government universities that have Faculties of Education;
3. they are all located in the same type of community, that is, a large-size campus in the chief cities in the central part of Thailand--Bangkok and Nakorn Patom; and
4. the students in these universities are heterogeneous and come from different backgrounds of interest in the study.

As for the characteristics of the subjects in the population, they were day-time regular students majoring in education. The total population was 4,473 students. (See Table 2 for the distribution of the population according to institution and year in school.)

Table 2.--Number of undergraduate students in education in four selected universities, academic year 1978.

Institution	1st Year	2nd Year	3rd Year	4th Year	Total
Chulalongkorn	392	401	339	380	1,512
Kasetsart	226	146	247	231	850
Prasarnmitr	268	227	587	574	1,656
Silpakorn	138	130	111	76	455
Total	1,024	904	1,284	1,261	4,473

Sample of the Study

The samples were selected through the use of the multistage sampling method. The following paragraphs describe the three sampling stages.

Stage 1 Using the Faculty of Education of each university as a unit, the population was divided into four groups:

1. Faculty of Education, Chulalongkorn;
2. Faculty of Education, Kasetsart;
3. Faculty of Education, Prasarnmitr campus,
Srinakharinwirot; and
4. Faculty of Education, Silpakorn.

Stage 2 For each Faculty of Education of each university, the students were divided into four groups according to their class level: freshman, sophomore, junior, or senior.

Stage 3 One-third of the students were randomly selected from each class level.

Figure 2 graphically depicts the three sampling stages used in the research.

Based on the multistage sampling procedure, the expected size of the sample for this study was 1,491 students. (See Table 3.) The questionnaires (ATTP scale) were administered from December 19, 1979, to January 17, 1980. The instruments were distributed in the classrooms and were collected the same day, after the students had finished answering the questions. Usable questionnaires were collected from 1,405 students; these students constituted the actual sample of the study. (See Table 4.) Tables 5 and 6 show the number of male and female students, respectively, in the study sample. Demographic characteristics of the students in the sample are shown in tabular form in Appendix B.

Research Instrument: The Attitude Toward
the Teaching Profession Scale (ATTP)

According to Thai government policies adopted in the 1977 academic year, attitudes toward the teaching profession are considered in screening applicants for the teacher training institutes. Thus, the

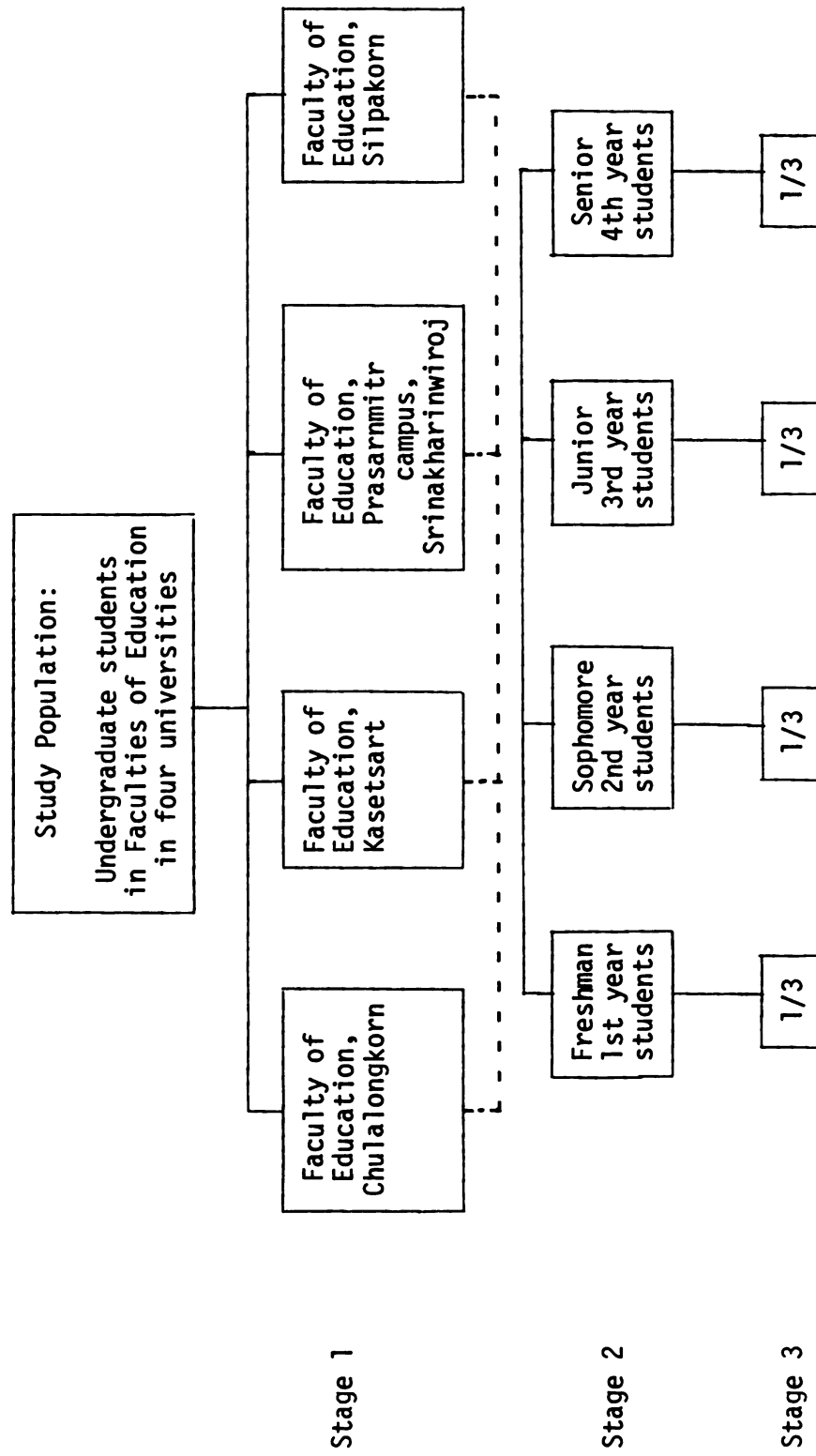


Figure 2.---Multistage sampling procedure used in the study.

Table 3.--Size of expected sample of the study, by university and class level.

Institution	1st Year	2nd Year	3rd Year	4th Year	Total
Chulalongkorn	131	134	113	127	505
Kasetsart	75	49	82	77	283
Prasarnmitr	89	76	196	191	552
Silpakorn	46	43	37	25	151
Total	341	302	428	420	1,491

Table 4.--Size of the actual sample of the study, by university and class level.

Institution	1st Year	2nd Year	3rd Year	4th Year	Total
Chulalongkorn	124	144	108	124	500
Kasetsart	75	67	79	80	301
Prasarnmitr	96	77	159	136	468
Silpakorn	48	31	32	25	136
Total	343	319	378	365	1,405

Table 5.--Number of male students in the sample, by university and class level.

Institution	1st Year	2nd Year	3rd Year	4th Year	Total
Chulalongkorn	57	56	45	48	206
Kasetsart	38	30	44	37	149
Prasarnmitr	13	17	90	89	209
Silpakorn	6	2	5	0	13
Total	114	105	184	174	577 ^a

^aTotals for male and female students do not add to 1,405 because nine students did not indicate their sex on the questionnaire.

Table 6.--Number of female students in the sample, by university and class level.

Institution	1st Year	2nd Year	3rd Year	4th Year	Total
Chulalongkorn	66	87	63	75	291
Kasetsart	37	37	35	43	152
Prasarnmitr	83	59	67	46	255
Silpakorn	40	29	27	25	121
Total	226	212	192	189	819 ^a

^aTotals for male and female students do not add to 1,405 because nine students did not indicate their sex on the questionnaire.

Office of University Affairs, which is responsible for producing teachers at degree level, developed an eight-year project for research and development in the area of attitudes toward the teaching profession. The instrument used in the present study was developed under that project in 1978 by Dr. Somwung Pitiyanuwat and Niyada Srichan of the Research Department, Faculty of Education, Culalongkorn University. (See Appendix C for Thai and English versions of the ATPP scale.)

The ATPP scale was based on ideas from Fishbein's theory of attitudes. The assumptions of this theory are:

1. an individual holds many beliefs about a given object;
i.e., the object may be seen as related to various attributes, such as other objects, concepts, values, or goals;
2. associated with each of the attributes is an implicit evaluative response, i.e., an attitude;
3. through conditioning, the evaluative responses are associated with the attitude object;
4. the conditioned evaluative responses summate; and thus
5. on future occasions, the attitude object will elicit this summated evaluative response, i.e., the overall attitude.¹

According to this theory, an individual's attitude toward an object is a function of (1) his stated beliefs about that object, i.e., the probability that the object is associated with other objects, concepts, values, or goals; and (2) the implicit evaluative responses associated with those stated beliefs, or the evaluative aspect of those beliefs, i.e., the attitude toward the "related objects."²

(See Figure 3.) Fishbein and others have provided strong evidence that an individual's attitude toward any object can be predicted from a knowledge of the individual's beliefs about the object and the evaluative aspects of those beliefs. The belief under consideration is a normative belief, that is, a belief about whether the particular act should or should not be performed. There are two types of normative beliefs: (a) the individual's belief about what he personally feels he should do (i.e., a personal norm or rule of behavior), and (b) the individual's belief about what "society" (i.e., most other people, his "significant others," etc.) "says" he should do (i.e., a social or group norm).³ Three major formulas in Fishbein's theory may be expressed algebraically as follows:

$$(1) \quad A_o = \sum_{i=1}^n b_i e_i$$

where A_o is the attitude toward some object or class of objects, o ;

b_i is the stated belief i about o , the subject's i^{th} stated belief or opinion about the object, o , i.e., the subjective probability that the attitude object is associated with some other object or attribute;

e_i is the evaluation of attribute i , or the evaluative aspect of b_i , i.e., the subject's attitude toward the related object or attribute; and

n is the number of beliefs or opinions the subject holds about the attitude object.

$$(2) \quad B \approx BI = (A_{\text{act}})_{w1} + (SN)_{w2}$$

where B is the subject's behavior;

BI is the subject's behavioral intention;

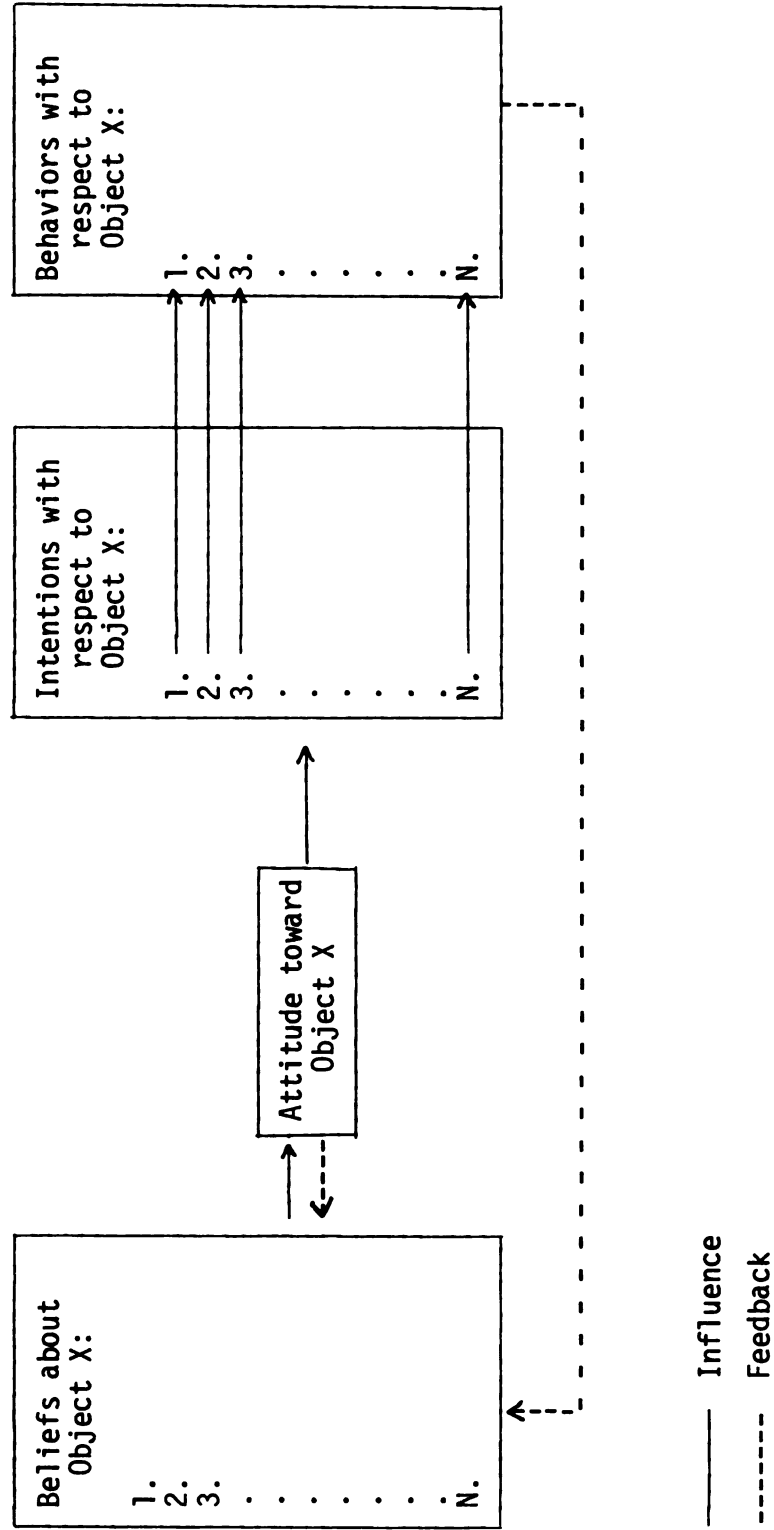


Figure 3.--Schematic presentation of conceptual framework relating beliefs, attitudes, intentions, and behaviors with respect to a given object.

- A_{act} is the subject's attitude toward performing the act or behavior
- SN is the subject's subjective norm concerning the behavior; and
- w_1, w_2 are empirically determined data weights from standard multiple-regression procedures.

$$(3) \quad SN = \sum_{i=1}^n NB_i (MC)_i$$

where SN is the subject's subjective norm;

NB_i is the subject's stated normative beliefs, i.e., the subject's belief that referent i thinks he should or should not perform behavior i ;

MC_i is the subject's motivation to comply with referent i ; and

n is the number of relevant referents.

The theory's validity of attitude ($A_0 = \sum_{i=1}^n b_i e_i$) is supported by Fishbein's research, which found that attitude toward blacks is highly related to expected attitude scores computed from $\sum_{i=1}^n b_i e_i$ (range of $r_{xy} = .76 - .82$).

The empirical validity of the theory concerning subjective norms (SN) and behavioral intention (BI) was shown by Ajzen and Fishbein, Hornick, Darroch, DeVries and Ajzen, Jaccard and Davidson, Vinokur, and Pitiyanuwat.⁴ Fishbein's theory was used experimentally in Thailand in a recent study by Taewtrakulwath.⁵

Construction of the ATTP Scale

In accordance with Fishbein's theory, the contents of the instrument are the stated salient beliefs about the teaching profession. Sixty M.S. 5 students in both science and art streams and 57 freshman students in the Faculty of Education, Chulalongkorn University, were asked to answer an open-ended question: "I believe the teaching profession is. . . ." Twenty-two frequently given responses were selected as the questionnaire items. Also, it was found that the influential groups (subjective norms) that are important in decision making are father, mother, relative, teacher, and friend.

The ATTP scale can be divided into three parts, as follows:

1. Attitude toward the teaching profession
 - 1.1 Evaluation of the probability of belief (b_i).
Example: Teaching is a prestigious profession.
Strongly Agree, Agree, Disagree, Strongly Disagree
 - 1.2 Evaluation of the attributes of each belief (e_i).
Example: Professions that are prestigious are. . . .
Very Desirable, Desirable, Undesirable, Very Undesirable
2. Subjective norms
 - 2.1 Evaluation of the possibility of subjective norms (NB_i).
Example: My father thinks that I should be a teacher.
Strongly Agree, Agree, Disagree, Strongly Disagree.
 - 2.2 Evaluation of the possibility to behave as suggested by the subjective norms (MC_i).
Example: In choosing my future profession, I will follow my father's advice. Most Possible, Possible, Not Possible, Never Possible.
3. Behavioral intention (BI).
Example: Definiteness of intention to become a teacher.
Most Definite, Very Definite, Definite, Not Definite, Never Intend.

After it was revised, the ATTP scale was administered to 453 M.S. 5 students and the freshman students in the Faculty of Education, Chulalongkorn University, in 1977. The data from that study were used for item selection and for analysis of the instrument's validity and reliability.

Item Selection

The items selected for the ATTP scale were those that could discriminate students who have positive attitudes toward the teaching profession from those who have negative attitudes ($\alpha = .40$).

Reliability

Test-retest reliability.--Thirty-six students took the ATTP scale twice, with a one-week interval between tests. Using Pearson's reliability model,

$$r_{xy} = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]}} ,$$

it was computed that $r_{xy} = 0.68$ ($p < .01$), for items b_i and e_i . The reliability for subjective norms (SN) was relatively low ($r_{xy} = .38$, $p < .10$) since there were only five items.

Internal consistency reliability.--The test of internal consistency reliability was done by using Cronbach's coefficient alpha:

$$\alpha = \frac{n}{n-1} \left(1 - \frac{\sum S_i^2}{S_x^2} \right)$$

The test measured the extent to which the criterion group members express the same preferences for statements presented in the ATTP scale. It was found that $\alpha = .67$ for students from coeducational schools, $\alpha = .59$ for students from girls' schools, and $\alpha = .66$ for students from boys' schools. The reliability for the subjective norms was $\alpha = .77$ for students from coeducational schools, $\alpha = .79$ for students from girls' schools, and $\alpha = .84$ for students from boys' schools.

Validity

The validity factors tested were (1) content validity, or the representativeness of salient beliefs concerning the teaching profession; and (2) construct validity, which was employed to test five hypotheses:

- H₁: Attitude scores measured by the Fishbein method are highly related to scores measured by the Likert method.
- H₂: There are relationships among behavioral intention (BI), attitude (A₀), and subjective norms (SN).
- H₃: The students who have positive attitudes toward the teaching profession have higher scores than those who have negative attitudes.
- H₄: Those who study in the Faculty of Education have higher scores than those students in M.S. 5.
- H₅: Faculty of Education students who selected the faculty as their first or second choice have more favorable attitudes toward the teaching profession than those who selected this faculty as another choice.

Correlation coefficients were employed to test Hypotheses 1 and 2. Hypotheses 3, 4, and 5 were tested by the t-test method. In sum, the ATTP scale was found to be discriminating and reliable.

In the final stage, the ATTP scale was revised and comprised five parts:

- Part 1 = the evaluation of attributes of the teaching profession (e_i)
- Part 2 = the subject's belief about whether referents think he should become a teacher (NB_i)
- Part 3 = the subject's motivation to comply with the referents (MC_i)
- Part 4 = the subject's subjective probability that the teaching profession is associated with some other attributes (b_i)
- Part 5 = variables to be studied for this research (independent variables)

Parts 1 and 4 are the scores for attitudes toward the teaching profession. Parts 2 and 3 are the scores for subjective norms. Subjective norms and behavioral intention, included in part 5, are treated as independent variables for the study.

In the first four parts, the subjects were asked to rate the statements on a four-point scale. In part 5, the subjects were asked to select choices for each item or to complete the statements.

Scoring Procedures

Attitude toward the teaching profession:

1. Part 1. For the positive statements (every item except items 4, 6, 9, and 12), score:

Very desirable	4 points
Desirable	3 points
Undesirable	2 points
Very undesirable	1 point

For the negative statements (items 4, 6, 9, and 12), reverse the scoring procedure: score 1, 2, 3, 4 points, respectively.

2. Part 4. For the positive statements (every item except items 4, 6, 9, 12, and 22), score:

Strongly agree	4 points
Agree	3 points
Disagree	2 points
Strongly disagree	1 point

For the negative statements (items 4, 6, 9, 12, and 22), score 1, 2, 3, 4 points, respectively.

3. The attitudes-toward-the-teaching-profession score is the multiplication of item i of Part 1 with item i of Part 4; there is a range from 1 to 16 points for each statement.

4. The attitudes-toward-the-teaching-profession score for each subject is the result of the multiplication of 22 items in Part 1 and 22 items in Part 4 and has a range from 1 to 352 points.

Subjective norms:

1. For each item in Parts 2 and 3, score:

Part 2	Very possible	4 points
	Possible	3 points
	Not possible	2 points
	Never possible	1 point
Part 3	Strongly agree	4 points
	Agree	3 points
	Disagree	2 points
	Strongly disagree	1 point

2. The subjective-norms score results from the multiplication of item i of Part 2 with item i of Part 3, which has a range from 1 to 16 points.

3. The subjective-norms score of each subject is the result of multiplying five items in Part 2 and five items in Part 3, and has a range from 1 to 80 points.

Avoiding the possibility of staged answers.--One of the problems with the ATP scale is the possibility of faking the answers. The methods of preventing this problem are as follows:

1. Anonymity--The students did not have to write their names or students numbers on the answer sheet. Also, in the introduction to the ATP scale, the researcher informed the students that the purpose of the study was not to identify individual responses but to report the results in general. The students were requested to answer the questions truthfully.

2. The answers to the negative statements (items 4, 6, 9, and 12) in Parts 1 and 4 were rechecked. The subjects should have answered the same way in both parts.

3. If the pattern of answers was all positive or all negative answers, that questionnaire was discounted.

4. The students were asked to complete the questionnaire within 30 minutes so that they would put down the first thing that came to their mind after reading each statement.

Data Collection

Letters of transmittal written by Dr. Sippanondha Ketudat, Secretary-General of the National Education Commission and later the Minister of Education, were sent to the Deans of the Faculties of Education of the four selected universities. (See Appendix A for

Thai and English versions of the letters.) The letter asked for their cooperation in administering the ATTP scale to the students. The secretary of each faculty provided a list of available classes in the second semester, which were randomly selected from each grade level. Students in the selected classes were asked to complete the ATTP scale in the classroom within 30 minutes.

To avoid replication, the students were asked if they had answered the ATTP scale before. If they had, they were asked not to answer it again. Those who did not answer in the first meeting were asked to do so in the next meeting.

Administration of the scale and data collection took place on December 19, 1979, and January 17, 1980. A high percentage of return (about 90.5%) was realized. The total number of returned questionnaires was 1,405.

Data-Analysis Procedures

Again, the main purposes of this study were (1) to investigate the attitudes of presently enrolled students in Faculties of Education toward the teaching profession; (2) to analyze the effect of personal, educational, and socioeconomic background factors on such attitudes; and (3) to analyze factors that are predictors of attitudes toward the teaching profession.

The study was divided into two parts. The first dealt with descriptive information concerning the factors that have an effect on attitudes toward the teaching profession. The second part analyzed the predictors of such attitudes.

The raw data were coded and punched onto IBM cards. Using the computer, IBM model 370, series 135, at the National Statistical Office of the Data-Processing Center of Thailand, the data were then analyzed using the following programs in the Statistical Package for the Social Sciences (SPSS):

1. ANOVA and multiple-range comparisons: t-test and Scheffé;
2. Pearson product-moment correlation coefficient; and
3. Multiple regression analysis.

One-way analysis of variance (ANOVA) was introduced to determine the differences in educational students' attitudes toward the teaching profession. The significance level was set at .05. Post-hoc comparison, Scheffé, and t-test were used. Scheffé was used to compare the differences in the factors that were considered significant and that had more than two groups. Using the t-test, other significant factors that had only two groups were compared to find the subgroups that produced the differences in attitudes toward the teaching profession.

Pearson product-moment correlation was used to analyze the relationship between the selected interval variables of the characteristics and backgrounds of the students and the attitudes toward the teaching profession. Sixteen continuous variables were selected to conduct the analysis. The relationships were considered significant at the .05 level.

Multiple regression analysis was conducted for the predictive part of the study. All variables on the characteristics and backgrounds of the students were first analyzed to select only those that

had a significant relationship with attitudes ($\alpha = .05$). The second step was to conduct a multiple regression analysis to find the predictors of such attitudes. In this analysis, the F value was set at 3.8, and the tolerance value was set at .4, which is the level of significance at the .05 level. Moreover, since the variables were both continuous and concrete categorical variables, through multiple regression analysis the categorical variables were grouped as dummy variables.

In Appendix D, tables of multiple classification analysis are presented. These tables show the effect of combined personal, socioeconomic, and educational background factors on attitudes toward the teaching profession.

The five principal analyses employed in the study were the following:

1. summary data: mean, standard deviation, variance of all variables on the personal characteristics and backgrounds of the students, and frequency of responses to the items in the ATTP scale;
2. a summary table of one-way analysis of variance (ANOVA);
3. presentation of the multiple-range comparison of the variables found to be significantly different in the ANOVA: t-test for variables that have two groups and Scheffé for those with more than two groups;
4. a summary table of Pearson product-moment correlation coefficients; and
5. tables of multiple regression analysis.

Chapter IV contains the results of the various statistical analyses used in the study.

Notes--Chapter III

¹M. Fishbein and I. Ajzen, Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research (Reading, Mass.: Addison-Wesley, 1975), p. 29.

²Ibid., p. 23.

³M. Fishbein, Readings in Attitude Theory and Measurement (New York: John Wiley & Sons, Inc., 1967), p. 489.

⁴I. Ajzen and M. Fishbein, "Attitudes and Normative Beliefs as Factors Influencing Behavioral Intentions," Journal of Personality and Social Psychology 21 (1969): 1-9; J. A. Hornick, "Two Approaches to Individual Differences in Cooperative Behavior in an Expanded Prisoner's Dilemma Game" (Master's-level paper, University of Illinois at Urbana-Champaign, 1970); R. K. Darroch, "Attitudinal Variables and Perceived Group Norms as Predictors of Behavioral Intentions" (Ph.D. dissertation, University of Illinois at Urbana-Champaign, 1971); D. L. DeVries and I. Ajzen, "The Relationship of Attitudes and Normative Beliefs to Cheating in College," Journal of Social Psychology 83 (1971): 199-207; J. J. Jaccard and A. R. Davidson, "Toward an Understanding of Family Planning Behaviors: An Initial Investigation," Journal of Applied Social Psychology 2 (1972): 228-35; D. R. K. Vinokur, "Family Planning Decision: Attitudes, Beliefs, and Behavioral Intentions" (Ph.D. dissertation, University of Michigan, 1975); S. Pitayanuwat, "Relationships Among Attitudes, Beliefs, Achievement, Intentions and Achievement Behavior in Mathematics" (Ph.D. dissertation, University of Minnesota, 1976).

⁵U. Taewtrakulwat, "Teacher Students' Attitudes Toward Drug Dependence and Their Subjective Norms" (Master's thesis, Chulalongkorn University, 1979). (In Thai.)

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The results of the statistical analysis are presented in this chapter. The summary data include the mean, standard deviation, and variance of the 31 independent variables concerning characteristics and backgrounds of students enrolled in the faculties of education. The frequencies of responses to the ATTP scale are also included. A one-way analysis of variance (ANOVA) table provides a summary of the variables that were or were not considered significant at the .05 level. For those that were considered significant, a multiple-range comparison (Scheffé) was applied for the variables with more than two groups, and the t-test was applied for those with two groups, to examine the specific differences between subgroups. A summary table of the Pearson product-moment correlation coefficients follows, displaying the relationship between the 16 selected continuous variables and attitudes toward the teaching profession. The results of multiple regression analyses are also presented.

Education Students' Beliefs About the Characteristics of a Profession

Descriptive information showing the responses of students enrolled in the faculties of education to the Attitude Toward the Teaching Profession (ATTP) scale is presented in Tables 7 and 8,

which describe their stated beliefs about the desirable and undesirable characteristics of a profession and what they believe to be true about the teaching profession.

Table 7 presents students' ratings of characteristics of professions as they view them generally. Respondents indicated that a profession is desirable if it:

1. gives social status and prestige,
2. is important to the country,
3. has direct influence on children,
4. provides an opportunity for corruption,
5. is enjoyable and exciting,
6. requires the use of intellectual abilities,
7. requires love of work as such,
8. allows an individual to acquire new skills and knowledge,
9. uses psychology in the work,
10. emphasizes good human relations,
11. requires ability to adapt to changing situations,
12. requires much patience,
13. involves heavy responsibilities,
14. requires one to be a firm person,
15. requires some sacrifice,
16. requires one to be a good model for children and others,
and
17. provides an opportunity for marriage.

Table 7.--Education students' beliefs about the characteristics of any profession.

Professions that . . . are:	Desirable		Undesirable		No Response	
	N	%	N	%	N	%
1. give social status and prestige	1,388	98.8	13	0.9	4	0.3
2. are important to the country	1,398	99.5	4	0.3	3	0.2
3. have direct influence on children	1,116	79.4	277	19.7	12	0.9
4. provide slow professional progress	29	2.1	1,372	97.6	4	0.3
5. are hard work	532	37.9	866	61.6	7	0.5
6. pay low salaries	42	3.0	1,355	96.4	8	0.6
7. provide no opportunity for corruption	1,296	92.2	104	7.4	5	0.4
8. are enjoyable and exciting	1,353	96.3	48	3.4	4	0.3
9. are routine	54	3.9	1,345	95.7	5	0.4
10. require the use of intellectual abilities	1,393	98.4	19	1.4	3	0.2
11. require love of work as such	1,364	97.8	29	2.1	2	0.1
12. make you a fussy and negative person	76	5.4	1,327	94.5	2	0.1
13. allow an individual to acquire new skills and knowledge	1,389	98.9	9	0.6	7	0.5
14. use psychology in the work	1,351	96.1	50	3.6	4	0.3
15. emphasize good human relations	1,384	98.5	16	1.1	5	0.4
16. require ability to adapt to changing situations	1,372	97.7	29	2.0	4	0.3
17. require much patience	1,275	90.7	129	9.2	1	0.1
18. involve heavy responsibilities	1,166	83.0	235	16.7	4	0.3
19. require you to be a firm person	1,371	97.6	30	2.1	4	0.3
20. require some sacrifice	1,344	95.7	58	4.1	3	0.2
21. require you to be a good model for children and others	1,381	98.3	22	1.6	2	0.1
22. provide an opportunity for marriage	1,212	86.3	186	13.2	7	0.5

Education students rated professions as undesirable if they:

1. permit slow professional progress,
2. are hard work,
3. pay low salaries,
4. are routine, and
5. make one a fussy and negative person.

Table 8 shows that with regard to the teaching profession, the majority of students agreed that it:

1. is a prestigious profession,
2. is important to the country,
3. has direct influence on children,
4. permits slow professional progress,
5. is hard work,
6. pays low salaries,
7. provides no opportunity for corruption,
8. requires intellectual abilities,
9. requires love of work,
10. makes one a fussy and negative person,
11. requires new skills and knowledge,
12. requires good human relations,
13. takes much patience,
14. requires heavy responsibilities,
15. requires a firm person,
16. requires sacrifice for the profession,
17. requires use of psychology in the profession,

Table 8.--Education students' stated beliefs about the teaching profession.

	Agree		Disagree		No Response	
	N	%	N	%	N	%
1. Teaching is a prestigious profession.	1,302	92.7	101	7.2	2	0.1
2. The teaching profession is important to the country.	1,395	99.3	9	0.6	1	0.1
3. Teachers have direct influence on children.	1,347	95.9	57	4.1	1	0.1
4. The teaching profession provides slow professional progress.	918	65.3	484	34.5	3	0.2
5. Teaching is hard work.	1,316	93.7	87	6.2	2	0.1
6. Teachers earn low salaries.	1,205	85.8	197	14.0	3	0.2
7. The teaching profession provides no opportunity for corruption.	869	61.9	534	38.0	2	0.1
8. Teaching is an enjoyable and exciting profession.	576	41.0	827	58.9	2	0.1
9. The teaching profession is routine work.	848	60.3	552	39.3	5	0.4
10. The teaching profession requires intellectual abilities.	1,364	97.1	37	2.6	4	0.3
11. Teachers love the teaching profession.	1,323	94.2	80	5.7	2	0.1
12. Teachers are fussy and negative persons.	794	56.5	608	43.3	3	0.2
13. Teachers must acquire new skills and knowledge.	1,389	98.9	14	1.0	2	0.1
14. Teachers use psychology in their profession.	1,392	99.1	9	0.6	4	0.3
15. Teachers have good human relations.	1,393	99.1	10	0.7	2	0.1
16. The teaching profession requires ability to adapt to changing situations.	1,372	97.7	31	2.2	2	0.1
17. The teaching profession takes much patience.	1,369	97.5	34	2.4	2	0.1
18. The teaching profession involves heavy responsibilities.	1,361	96.9	42	3.0	2	0.1
19. Teachers are firm people.	1,374	97.8	29	2.1	2	0.1
20. Teachers sacrifice themselves for the teaching profession.	1,356	96.5	47	3.4	2	0.1
21. Teachers are good models for children and others.	1,354	96.4	46	3.2	5	0.4
22. Teachers rarely get married.	221	15.7	1,163	82.8	21	1.5

18. requires a good model for children and others, and
19. requires the ability to adapt to changing situations.

Factors on which the students did not rank the teaching profession high were:

1. it provides slow professional progress,
2. it is hard work,
3. teachers earn too low a salary,
4. teaching is neither enjoyable nor exciting,
5. teaching is routine work, and
6. teaching makes one a fussy and negative person.

The mean (\bar{X}), standard deviation (S.D.), and variance (S^2) of the responses to the ATTP scale are presented in Table 9. The mean of the attitude toward the teaching profession for the entire sample ($N = 1,405$) was 233.56. Students' attitudes toward the teaching profession were widely dispersed, as indicated by the standard deviation of 3.77 and variance of 1140.66.

As for the various factors (the independent variables), the mean ranged from the smallest (107.86) for students whose fathers had other ethnicity than Thai and Chinese, to the largest (252.33) for those students who were most certain of becoming teachers after graduation. The difference ranged from the narrowest (17.09) for those students whose fathers were neither Thai nor Chinese to the widest (77.48) for students who selected Khon Kaen University as their first-choice university in the entrance examination.

Table 9.--Summary data on the attitudes toward the teaching profession of education students in the study sample.

Variables	Mean	S.D.	Variance	N
Attitude toward the teaching profession	233.56	33.77	1140.66	1,405
Student's sex:				
Male	233.57	35.06	1228.89	577
Female	233.66	32.80	1076.10	819
Student's age:				
Below 17	224.39	36.07	1300.65	28
18-20	232.07	32.92	1083.58	567
21-23	233.17	35.40	1253.31	471
24 and above	237.36	32.43	1051.59	339
University attended:				
Chulalongkorn	229.87	33.75	1139.24	500
Kasetsart	231.89	35.23	1241.48	301
Srinakharinwirot	239.08	31.19	972.89	468
Silpakorn	231.66	37.15	1380.03	134
Class level:				
Freshman	234.18	35.20	1239.03	342
Sophomore	228.87	31.95	1020.63	319
Junior	235.82	33.80	1142.22	378
Senior	234.72	33.72	1137.64	365
Academic program:				
Early Childhood Education	223.57	32.01	1024.62	7
Elementary Education	239.28	32.79	1075.51	251
Secondary Education	231.57	34.56	1194.59	501
Nonformal Education	236.77	33.09	1094.66	81
Physical Education	233.43	27.67	765.48	110
Agricultural Education	249.76	39.52	1561.94	25
Home Economics Education	240.35	28.43	808.34	30
Art Education	226.09	28.57	816.47	32
Others	230.49	35.83	1283.71	292
First-choice faculty:				
Agriculture	226.69	47.12	2220.41	42
Law	235.50	32.56	1059.95	54
Medical Science	229.91	33.79	1142.05	151
Humanities	233.55	35.19	1309.98	150
Fine Arts	233.52	32.16	1034.39	44
Natural Science	236.53	30.04	902.14	17
Engineering	220.03	32.30	1043.60	39
Education	238.18	32.44	1052.59	578
Social Science	228.40	33.71	1136.51	212

Table 9.--Continued.

Variables	Mean	S.D.	Variance	N
First-choice university:				
Chulalongkorn	231.65	33.29	1108.24	494
Kasetsart	235.13	21.58	997.24	154
Silpakorn	230.20	28.21	796.04	50
Srinakharinwiroj	240.77	31.53	993.85	259
Chiang Mai	236.77	33.56	1126.58	56
Khon Kaen	215.09	77.48	6002.89	11
Prince of Songkla	233.63	33.05	1092.27	8
Thammasat	230.81	37.93	1438.76	175
Mahidol	228.03	34.16	1167.03	59
Rank of Faculty of Education:				
First choice	238.17	31.67	1002.88	160
Second choice	236.83	32.40	1049.47	446
Third choice	226.39	28.85	832.19	110
Fourth choice	229.58	37.62	1415.54	128
Fifth choice	227.58	38.32	1468.75	194
Sixth choice	232.77	33.93	1151.41	223
Intention to become teacher:				
Most definite	252.33	33.20	1101.96	233
Very definite	234.58	31.19	972.67	479
Definite	228.10	30.64	938.51	354
Not definite	222.24	38.74	1500.74	119
Never intend	224.90	33.36	1112.60	211
Attended teacher college:				
Attended	239.24	31.43	988.09	351
Did not attend	231.53	34.23	1171.98	1,050
M.S. 5 percent:				
80% and above	235.70	32.53	1058.05	136
70-79%	235.27	33.71	1136.39	555
60-69%	232.20	34.80	1211.12	415
50-59%	230.49	35.26	1242.99	161
Below 50%	228.91	32.01	1024.89	11
GPA in the university:				
3.5-4.0	230.87	34.93	1208.58	31
3.0-3.4	238.29	31.41	986.55	210
2.5-2.9	230.60	32.69	1068.43	610
2.0-2.4	230.64	36.80	1354.38	457
0.0-1.9	229.16	28.56	815.56	74
Type of primary school:				
Local administration	236.64	34.69	1203.65	383
Municipal	234.66	34.91	1218.53	119
Under the Ministry	234.50	31.38	984.65	321
Private	230.01	34.11	1163.67	525

Table 9.--Continued.

Variables	Mean	S.D.	Variance	N
Demonstration	239.43	33.30	1109.13	35
Other types	231.36	34.52	1191.94	14
Location of primary school (GPP--millions of baht):				
Low (2000-10,000)	236.32	32.70	1069.11	483
Average (10,001-20,000)	235.31	33.87	1146.95	283
High (20,001-78,000)	230.26	34.39	1182.55	587
Type of secondary school:				
Government	233.32	33.45	1118.90	1,048
Private	231.76	35.99	1295.21	216
Demonstration	238.43	35.71	1274.90	44
Other types	236.03	32.22	1038.19	64
Location of secondary school (GPP--millions of baht):				
Low (2000-10,000)	235.67	31.05	964.18	347
Average (10,001-20,000)	235.15	35.59	1266.78	219
High (20,001-78,000)	231.51	34.50	1190.05	771
Region of secondary school:				
Bangkok	231.46	34.70	1204.25	723
Central	234.70	34.30	1176.26	325
North	234.54	29.61	876.99	80
Northeast	235.45	31.10	567.42	127
South	237.68	33.23	1103.92	94
Birthplace (GPP--mill. of baht):				
Low (2000-10,000)	236.20	32.61	1063.48	538
Average (10,001-20,000)	235.07	34.16	1166.80	278
High (20,001-78,000)	230.50	34.33	1178.56	561
Birthplace (region):				
Bangkok	230.39	35.16	1236.24	457
Central	234.26	31.70	1005.04	433
North	235.33	33.21	1103.05	122
Northeast	236.40	30.68	941.51	188
South	236.83	37.99	1442.93	159
Residence (GPP--mill. of baht):				
Low (2000-10,000)	236.29	33.21	1102.60	460
Average (10,001-20,000)	234.62	33.46	1119.53	274
High (20,001-78,000)	230.92	34.24	1172.44	627
Residence (region):				
Bangkok	230.42	35.12	1233.17	541
Central	234.21	30.99	960.41	437
North	234.52	34.04	1158.93	110
Northeast	238.27	31.13	969.34	164
South	236.99	38.44	1477.47	143

Table 9.--Continued.

Variables	Mean	S.D.	Variance	N
Family size:				
1-3	233.71	34.06	1160.16	10
4-6	233.72	33.85	1145.99	321
7-9	231.66	34.28	1175.02	344
10 and up	236.98	29.73	884.04	98
Birth order in the family:				
1-3	234.22	33.63	1131.00	832
4-6	231.05	33.18	1100.82	415
7-9	234.09	37.08	1374.67	117
10 and up	242.58	22.39	501.47	24
Father's ethnicity:				
Thai	234.39	32.79	1075.08	1,075
Chinese	231.39	36.95	1365.50	320
Others	207.86	17.09	292.14	7
Mother's ethnicity:				
Thai	234.33	32.94	1084.80	1,141
Chinese	229.68	37.10	1376.51	255
Others	230.00	59.40	3528.00	2
Father's education:				
Gr. 1-Gr. 4	235.39	32.24	1039.35	587
Gr. 5-Gr. 7	231.92	31.61	999.46	130
Gr. 8-Gr. 10	232.40	36.16	1307.58	227
Gr. 11-Gr. 12	228.66	33.22	1103.25	87
Diploma	233.83	34.18	1168.31	120
Bachelor's degree	235.58	31.62	999.66	137
Master's or Ph.D.	227.05	35.78	1280.00	38
Mother's education:				
Gr. 1-Gr. 4	234.32	32.78	1074.30	826
Gr. 5-Gr. 7	234.33	32.93	1084.22	146
Gr. 8-Gr. 10	233.02	33.61	1129.74	135
Gr. 11-Gr. 12	229.83	33.46	1119.26	53
Diploma	230.86	33.51	1122.84	93
Bachelor's degree	230.98	34.42	1184.77	94
Master's or Ph.D.	235.22	38.43	1476.89	18
Father's occupation:				
Death	234.72	33.73	1137.84	216
No occupation	236.48	30.36	921.73	58
Government employee	233.50	31.58	998.01	263
Business or industry employee	234.16	40.23	1618.52	110
Private business	232.65	34.03	1151.57	360
Teacher	235.17	31.36	983.65	86
Farmer	232.91	33.80	1142.33	213
Others	231.73	35.40	1253.39	95

Table 9.--Continued.

Variables	Mean	S.D.	Variance	N
Mother's occupation:				
Death	233.88	34.40	1183.15	76
No occupation	232.93	33.75	1138.87	450
Government employee	239.63	30.50	930.10	88
Business or industry employee	237.82	30.64	939.10	39
Private business	231.43	34.64	1199.82	318
Teacher	230.98	31.99	1023.21	90
Farmer	234.91	35.50	1259.92	236
Others	233.93	32.16	1934.38	103
Family income (baht):				
None	235.84	30.22	913.49	103
Below 500	245.29	35.11	1232.68	31
500-1,000	239.74	33.10	1095.62	81
1,001-2,000	232.27	29.19	851.96	119
2,001-3,000	233.54	34.73	1206.28	256
3,001-5,000	231.19	33.26	1106.10	329
5,001-7,000	236.10	34.27	1174.26	201
Above 7,000	233.15	32.89	1081.99	239
Norm--father:				
Low	231.48	34.29	1176.35	1,000
High	238.71	31.90	1017.93	405
Norm--mother:				
Low	230.92	34.78	1209.58	966
High	239.39	30.69	941.90	439
Norm--relative:				
Low	232.90	33.90	1149.13	1,280
High	239.94	31.65	1001.62	124
Norm--teacher:				
Low	232.79	34.23	1171.65	1,120
High	236.62	31.79	1010.84	285
Norm--friend:				
Low	233.64	33.60	1129.09	1,279
High	232.75	35.60	1267.39	126
Subjective norms:				
Low	230.80	35.38	1251.89	769
High	236.91	31.42	987.49	636

To present a clearer picture of the attitudes toward the teaching profession of the students enrolled in the Faculties of Education, Table 10 differentiates two groups of students--those with high scores on attitudes toward the teaching profession ($\bar{X} \geq 233.57$) and those with low scores on attitudes toward the teaching profession ($\bar{X} \leq 233.56$).

Table 10 shows that both male and female students had high attitudes toward the teaching profession. Of all the age groups, those who were 24 years old and older had high attitudes. Only those students who attended Srinakharinwirot University had high attitudes toward the teaching profession. Students at all class levels except the sophomore level had high attitudes. Concerning students in the various academic programs offered in the university, those who studied elementary education, nonformal education, agricultural education, and home economics education had high attitudes toward the teaching profession. Students who selected law, natural science, and education as their first-choice faculty and those who selected Kasetsart University, Srinakharinwirot University, Chiang Mai University, and Prince of Songkla University as their first choice in the Entrance Examination had higher attitude scores than students who selected other faculties and universities as their first choices. The evidence that the students who preferred to study education had more positive attitudes than others was also demonstrated by the fact that those who ranked the Faculty of Education as their first or second desirable choice in the Entrance Examination and those who were most certain about becoming a teacher after graduation had higher ratings of attitudes toward the teaching profession than did the others who were sampled. Students

who received above 70% on the secondary-school-leaving examination and who maintained between a 2.5 and a 3.4 grade point average in the university had high attitude scores as well.

Further, the students who graduated from government and demonstration schools held more positive attitudes than those who graduated from private schools. Students from different types of communities in terms of GPP also showed varying levels of attitudes toward the teaching profession. It was found that students who were from the provincial areas had the most positive attitudes toward the teaching profession.

Among the socioeconomic backgrounds of the students, it was shown that the students who were from a relatively large family with seven to nine children and those who were born as the fourth, fifth, or sixth child of the family had more positive attitudes. Of all the ethnic groups, the Thai had the highest scores on attitude toward the teaching profession.

Students whose fathers received lower primary education (grades 1-4) and/or education of no higher than a bachelor's degree had high attitudes. Concerning mother's educational level, it was found that those whose mothers received higher primary education (grades 1-7) and/or received a master's or a Ph.D. degree had high scores on attitude toward the teaching profession. It is noteworthy that the students whose fathers were teachers had more positive attitudes; those whose mothers were teachers had less positive attitudes.

Table 10.--Attitudes toward the teaching profession, according to students' characteristics and backgrounds.

Variables	Attitude			
	N	High $\bar{X} \geq 233.57$	Low $\bar{X} \leq 233.56$	N
Student's sex:				
Male	577	233.57		
Female	819	233.66		
Student's age:				
Below 17			224.39	28
18-20			232.39	567
21-23			233.17	471
24 and above	339	237.36		
University attended:				
Chulalongkorn			229.87	500
Kasetsart			231.89	301
Srinakharinwirot	468	239.08		
Silpakorn			231.66	134
Class level:				
Freshman	342	234.18		
Sophomore			228.87	319
Junior	378	235.82		
Senior	365	234.71		
Academic program:				
Early Childhood Education			223.57	7
Elementary Education	251	239.28		
Secondary Education			231.57	501
Nonformal Education	81	236.77		
Physical Education			233.43	110
Agricultural Education	25	249.76		
Home Economics Education	20	240.35		
Art Education			226.09	32
Others			230.49	292
First-choice faculty:				
Agriculture			226.69	42
Law	54	235.50		
Medical Science			229.91	151
Humanities			233.55	150
Fine Arts			233.52	44
Natural Science	17	236.53		
Engineering			220.03	39
Education	578	238.18		
Social Science			230.53	118

Table 10.--Continued.

Variables	Attitude			
	N	High $\bar{X} \geq 233.57$	Low $\bar{X} \leq 233.56$	N
First-choice university:				
Chulalongkorn			231.65	494
Kasetsart	154	235.12		
Silpakorn			230.20	50
Srinakharinwiroj	259	240.77		
Shiang Mai	56	236.77		
Khon Kaen			215.09	11
Prince of Songkla	8	233.63		
Thammasat			230.81	175
Mahidol			228.03	59
Rank of Faculty of Education:				
First choice	446	238.17		
Second choice	144	236.83		
Third choice			226.39	110
Fourth choice			229.58	128
Fifth choice			227.58	194
Sixth choice			232.77	223
Intention to become teacher:				
Most definite	233	252.33		
Very definite	479	234.58		
Definite			228.24	354
Not definite			222.24	119
Never intend	9	261.56		
Attended teacher college:				
Attended	358	239.24		
Did not attend			231.53	1,050
M.S. 5 percent:				
80% and above	136	235.70		
70-79%	555	235.27		
60-69%			232.20	415
50-59%			230.49	161
Below 50%			228.91	11
GPA in the university:				
3.5-4.0			230.87	31
3.0-3.4	210	23.829		
2.5-2.9	610	234.60		
2.0-2.4			230.64	457
0.0-1.9			229.16	74
Type of primary school:				
Local administration	383	236.64		
Municipal	119	234.66		
Under the Ministry	321	234.50		

Table 10.--Continued.

Variables	Attitude			
	N	High $\bar{X} \geq 233.57$	Low $\bar{X} \leq 233.56$	N
Private			230.01	525
Demonstration	35	239.43		
Other types			231.36	14
Type of secondary school:				
Government			233.32	1,048
Private			231.76	216
Demonstration	44	238.43		
Other types	64	236.03		
Location of primary school (GPP--millions of baht)				
Low (2000-10,000)	483	236.32		
Average (10,001-20,000)	283	235.31		
High (20,001-78,000)			230.26	587
Location of secondary school (GPP--millions of baht)				
Low (2000-10,000)	347	235.67		
Average (10,001-20,000)	219	235.15		
High (20,001-78,000)			231.51	771
Region of secondary school:				
Bangkok			231.46	723
Central	325	234.70		
North	80	234.54		
Northeast	127	235.45		
South	94	237.68		
Birthplace (GPP--mill. of baht):				
Low (2000-10,000)	538	236.20		
Average (10,001-20,000)	278	235.07		
High (20,001-78,000)			230.50	561
Birthplace (region):				
Bangkok			230.39	497
Central	433	234.26		
North	122	235.33		
Northeast	188	236.40		
South	159	236.83		
Residence (GPP--mill. of baht):				
Low (2000-10,000)	460	236.29		
Average (10,001-20,000)	274	234.62		
High (20,001-78,000)			230.92	627

Table 10.--Continued.

Variables	Attitude			
	N	High $\bar{X} \geq 233.57$	Low $\bar{X} \leq 233.56$	N
Residence (region):				
Bangkok			230.42	541
Central	437	234.21		
North	110	234.52		
Northeast	164	238.27		
South	143	236.99		
Family size:				
1-3	321	233.71		
4-6	632	233.72		
7-9			231.66	344
10 and up	98	236.98		
Birth order in the family:				
1-3	832	234.22		
4-6			231.05	415
7-9	117	234.09		
10 and up	24	242.58		
Father's ethnicity:				
Thai	1,075	234.39		
Chinese			231.39	320
Others			207.86	7
Mother's ethnicity:				
Thai	1,141	234.33		
Chinese			229.67	255
Others			230.00	2
Father's education:				
Gr. 1-Gr. 4	587	235.39		
Gr. 5-Gr. 7			231.92	130
Gr. 8-Gr. 10			232.40	
Gr. 11-Gr. 12			228.66	
Diploma	120	233.83		
Bachelor's degree	137	235.58		
Master's or Ph.D.			227.05	38
Mother's education:				
Gr. 1-Gr. 4	826	234.32		
Gr. 5-Gr. 7	146	234.33		
Gr. 8-Gr. 10			233.02	135
Gr. 11-Gr. 12			229.83	53
Diploma			230.86	93
Bachelor's degree			230.98	94
Master's or Ph.D.	18	235.22		

Table 10.--Continued.

Variables	Attitude			
	N	High $\bar{X} \geq 233.57$	Low $\bar{X} \leq 233.56$	N
Father's occupation:				
Death	216	234.72		
No occupation	58	236.48		
Government employee			233.50	263
Business or industry employee	110	234.16		
Private business			232.65	360
Teacher	86	235.17		
Farmer			232.91	213
Others			231.73	95
Mother's occupation:				
Death	76	233.88		
No occupation			232.93	450
Government employee	88	239.63		
Business or industry employee	39	237.82		
Private business			231.43	318
Teacher			230.98	90
Farmer	236	234.91		
Others	103	233.93		
Family income (baht):				
None	103	235.84		
Below 500	31	245.29		
500-1,000	81	239.74		
1,001-2,000			232.27	119
2,001-3,000			233.54	256
3,001-5,000			231.19	329
5,001-7,000	201	236.10		
Above 7,000			233.15	239
Norm--father:				
Low			231.48	1,000
High	405	238.71		
Norm--mother:				
Low			230.92	966
High	439	239.39		
Norm--relative:				
Low			232.90	1,280
High	124	239.94		
Norm--teacher:				
low			232.79	1,120
High	285	236.62		

Table 10.--Continued.

Variables	Attitude			
	N	High $\bar{X} \geq 233.57$	Low $\bar{X} \leq 233.56$	N
Norm--friend:				
Low	1,279	233.64		
High			232.75	126
Subjective norms:				
Low			230.80	769
High	636	236.91		

Students with lower family income levels (from none to 1,000 baht per month) and those whose families had incomes between 5,001 and 7,000 baht per month had more positive attitudes toward the teaching profession than did students from other family income levels.

Table 11 provides an indication of the role certain referent groups play in influencing students' professional career decisions. This group, described in the Definition of Terms in Chapter I as subjective norms, comprises parents, relatives, teachers, and/or friends. From the table it can be seen that persons in these groups tended to be positive in endorsing the respondents for teaching, although the differences did not vary widely except in the case of teachers and friends.

With regard to following the advice of these groups, respondents tended to express independence in their career decision making, particularly with regard to relatives, teachers, and friends. It is interesting that parents, who traditionally have played an important role in the Thai culture where their children are concerned, were not endorsed by a majority of respondents, although they were still the most

significant of the groups that were rated. It would be of considerable interest to pursue this aspect of the study in greater depth. The question comes to mind: Just who are the "significant others" whom students like those in the sample consult in such matters as career decision making in the current Thai culture?

Table 11.--Subjective norms (referent group) of the education students.

Tendency to Follow Subjective Norm Group's Advice	Probably		Probably Not		No Response	
	N	%	N	%	N	%
In choosing my future profes- sion, I would most likely follow . . . advice.						
1. my father's	624	44.4	771	54.9	10	0.7
2. my mother's	633	45.0	764	54.4	8	0.6
3. my relative's	209	14.8	1,188	84.5	8	0.6
4. my teacher's	361	25.7	1,037	73.8	7	0.5
5. my friend's	228	16.2	1,167	83.1	10	0.7
Opinions of Subjective Norm Group Regarding the Student Becoming a Teacher						
	Agree		Disagree		No Response	
	N	%	N	%	N	%
. . . thinks that I should become a teacher.						
1. My father	742	52.8	638	45.4	25	1.8
2. My mother	836	59.5	549	39.1	20	1.4
3. My relative	625	44.5	759	54.0	21	1.5
4. My teacher	937	66.7	444	31.6	24	1.7
5. My friend	680	48.4	707	50.3	18	1.3

Descriptive Study

Introduction

Analysis of variance (ANOVA) is a procedure for testing the homogeneity of a set of means. It is a method for splitting the total variation of the data into meaningful components that measure different sources of variation. In this analysis, significance of differences between variables was tested on the basis of the F ratio, or the ratio of between-groups variance to within-group variance. The larger the F ratio, the less likely it is that the variances in the population from which the samples were drawn are equal. At the .05 alpha level, the null hypothesis is rejected, and the researcher may conclude that obtained differences between the sample variance are valid.

The total sum of squares (SS_T) measures the total variability of the data. The total sum of deviation squared from the grand mean can be separated into two parts: the sum of deviation squared within groups (SS_W), which reflects chance variation, and the weighted sum of deviation squared of group means from the grand mean (SS_B), which reflects variability resulting from true difference and chance.

The estimate of the population variance of the criterion is mean square between groups (MS_B), or the estimate of population variance based on between-category variation, and mean square within group (MS_W), or the estimate of population variance based on within-category variation.

Another purpose of the ANOVA is to determine whether any group differs significantly from any other. In this case, several

multiple-range tests, which separate a set of significantly different means into subsets of homogeneous means, were employed. The t-test or the student's t compares two means to determine if there are differences between the two groups. The other multiple-range comparison, the Scheffé test, compares subgroups for which highest and lowest means do not differ by more than the shortest significant range for a subset of that size.

Analysis of Variance (ANOVA)

One-way analysis of variance was computed to test the following hypotheses:

Personal Characteristics

Ho₁: No differences will be found in attitudes toward the teaching profession between male students and female students, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2$

where 1 = male students 2 = female students

Ho₂: No differences will be found in attitudes toward the teaching profession among students of different age groups, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

where 1 = below 17 3 = 21-23
2 = 18-20 4 = 24 and above

Ho₃: No differences will be found in attitudes toward the teaching profession among students of different birth order in the family, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

where 1 = 1-3 3 = 7-9
2 = 4-6 4 = 10 and higher

Socioeconomic background

Ho₄: No differences will be found in attitudes toward the teaching profession among students who come from different-sized families, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

where 1 = 1-3 3 = 7-9
2 = 4-6 4 = 10 and higher

Ho₅: No differences will be found in attitudes toward the teaching profession among students whose families have different income levels, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$

where 1 = none 5 = 2,001-3,000
2 = below 500 6 = 3,001-5,000
3 = 500-1,000 7 = 5,001-7,000
4 = 1,001-2,000 8 = above 7,000

Ho₆: No differences will be found in attitudes toward the teaching profession among students whose fathers have different occupations, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$

where 1 = death 5 = private business
2 = no occupation 6 = teacher
3 = gov't employee 7 = farmer
4 = business or industry 8 = other occupations

Ho₇: No differences will be found in attitudes toward the teaching profession among students whose mothers have different occupations, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8$

where 1 = death 5 = private business
2 = no occupation 6 = teacher
3 = gov't employee 7 = farmer
4 = business or industry 8 = other occupations

Ho₈: No differences will be found in attitudes toward the teaching profession among students whose fathers finished different educational levels, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$

where 1 = P1-P4 5 = Diploma
 2 = P5-P7 6 = Bachelor's degree
 3 = M1-M3 7 = Master's or Ph.D.
 4 = M4-M5

Ho₉: No differences will be found in attitudes toward the teaching profession among students whose mothers finished different educational levels, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7$

where 1 = P1-P4 5 = Diploma
 2 = P5-P7 6 = Bachelor's degree
 3 = M1-M3 7 = Master's or Ph.D.
 4 = M4-M5

Ho₁₀: No differences will be found in attitudes toward the teaching profession among students whose fathers are in different ethnic groups, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where 1 = Thai 2 = Chinese 3 = Other ethnicity

Ho₁₁: No differences will be found in attitudes toward the teaching profession among students whose mothers are in different ethnic groups, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where 1 = Thai 2 = Chinese 3 = Other ethnicity

Ho₁₂: No differences will be found in attitudes toward the teaching profession among students who were born in different types of communities (GPP), as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where 1 = GPP 2000-10,000
2 = GPP 10,001-20,000
3 = GPP 20,001-78,000

Ho₁₃: No differences will be found in attitudes toward the teaching profession among students who were born in different regions, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

where 1 = Bangkok 4 = Northeast
2 = Central 5 = South
3 = North

Ho₁₄: No differences will be found in attitudes toward the teaching profession among students who spent the longest time in different types of communities (GPP), as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where 1 = GPP 2000-10,000
2 = GPP 10,001-20,000
3 = GPP 20,001-78,000

Ho₁₅: No differences will be found in attitudes toward the teaching profession among students who spent the longest time in different regions, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

where 1 = Bangkok 4 = Northeast
2 = Central 5 = South
3 = North

Educational background

Ho₁₆: No differences will be found in attitudes toward the teaching profession among students who attend different universities, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

where 1 = Chulalongkorn 3 = Srinakharinwiroj
2 = Kasetsart 4 = Silpakorn

Ho₁₇: No differences will be found in attitudes toward the teaching profession among students who are in different years (class levels) in the university, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$

where 1 = Freshman 3 = Junior
2 = Sophomore 4 = Senior

Ho₁₈: No differences will be found in attitudes toward the teaching profession among students who are studying in different academic programs, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9$

where 1 = Early Childhood Ed. 6 = Agricultural Ed.
2 = Elementary Ed. 7 = Home Economics Ed.
3 = Secondary Ed. 8 = Art Ed.
4 = Nonformal Ed. 9 = Other programs
5 = Physical Ed.

Ho₁₉: No differences will be found in attitudes toward the teaching profession among students who received different percentages in the M.S. 5 or M.6 school-leaving examination, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

where 1 = above 80% 4 = 50-59%
2 = 70-79% 5 = Below 50%
3 = 60-69%

Ho₂₀: No differences will be found in attitudes toward the teaching profession among students who received different grade point averages in the university, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

where 1 = 3.5-4.0 4 = 2.0-2.4
 2 = 3.0-3.4 5 = 0.0-1.9
 3 = 2.5-2.9

Ho₂₁: No differences will be found in attitudes toward the teaching profession among students who graduated from different types of primary schools, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$

where 1 = Local admin. school 4 = Private school
 2 = Municipal school 5 = Demonstration school
 3 = Schools under the 6 = Other types of
 Ministry of Educ. primary schools

Ho₂₂: No differences will be found in attitudes toward the teaching profession among students who graduated from different types of secondary schools, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where: 1 = Government school
 2 = Private school
 3 = Demonstration school

Ho₂₃: No differences will be found in attitudes toward the teaching profession among students whose primary schools are in different types of communities (GPP), as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where 1 = GPP 2000-10,000
 2 = GPP 10,001-20,000
 3 = GPP 20,001-78,000

Ho₂₄: No differences will be found in attitudes toward the teaching profession among students whose secondary schools are in different types of communities (GPP), as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3$

where 1 = GPP 2000-10,000
 2 = GPP 10,001-20,000
 3 = GPP 20,000-78,000

Ho₂₅: No differences will be found in attitudes toward the teaching profession among students whose secondary schools are in different regions, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

where 1 = Bangkok 4 = Northeast
 2 = Central 5 = South
 3 = North

Selected Other Factors

Ho₂₆: No differences will be found in attitudes toward the teaching profession among students who ranked the Faculty of Education as different choices in the Entrance Examination, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$

where 1 = First choice 4 = Fourth choice
 2 = Second choice 5 = Fifth choice
 3 = Third choice 6 = Sixth choice

Ho₂₇: No differences will be found in attitudes toward the teaching profession among students whose levels of definiteness of intention to become a teacher are different, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$

where 1 = Most definite 4 = Not definite
 2 = Very definite 5 = Never intend to
 3 = Definite become a teacher

Ho₂₈: No differences will be found in attitudes toward the teaching profession between students who had attended a teacher training college and those who had not attended, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2$

where 1 = those who had attended a teacher training college
2 = those who had not attended

Ho₂₉: No differences will be found in attitudes toward the teaching profession among students who selected different faculties as their first choice in the Entrance Examination, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9$

where 1 = Agriculture	6 = Sciences
2 = Law	7 = Engineering
3 = Medical science	8 = Education
4 = Humanities	9 = Social Sciences
5 = Fine arts	

Ho₃₀: No differences will be found in attitudes toward the teaching profession among students who selected different universities as their first choice in the Entrance Examination, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9$

where 1 = Chulalongkorn	6 = Kohn Kaen
2 = Kasetsart	7 = Prince of Songkla
3 = Silpakorn	8 = Thammasat
4 = Srinakharinwiroj	9 = Mahidol
5 = Chiang Mai	

Ho₃₁: No differences will be found in attitudes toward the teaching profession between students with high subjective-norm levels and those with low subjective-norm levels, as measured by the ATTP scale.

Symbolically: $H_0: \mu_1 = \mu_2$

where 1 = Low subjective-norm level (score 0-8)
2 = High subjective-norm level (score 9-16)

Table 12 summarizes the results of the analysis of variance tests. As shown in the table, 15 hypotheses were determined to be significant at the .05 level.

The null hypotheses for H1, H2, H3, H4, H5, H6, H7, H8, H9, H11, H13, H19, H21, H22, H24, and H25 were not rejected because the value of p on the F -test exceeded the .05 level. Thus there were no differences in attitudes toward the teaching profession according to the following variables: sex, age, birth order in the family, family size, family income level, father's occupation, mother's occupation, mother's ethnicity, type of community in which the student was born, percentage on the M.S. 5 examination, type of elementary school attended, type of secondary school attended, type of community where the secondary school is situated, and region where the secondary school is located.

Significant differences were found in H10, H12, H14, H15, H16, H17, H18, H20, H23, H26, H27, H28, H29, H30, and H31. These hypotheses, stated in null form, were rejected because the values of p on the F -test were less than .05, which was the alpha level set for this study. The results can be interpreted to say that there were differences in attitudes toward the teaching profession among students:

1. whose fathers are in different ethnic groups,
2. who were born in different types of communities,
3. who spent the longest time in different types of communities,
4. who spent the longest time in different regions,
5. who attended different universities,

Table 12.--Summary table for ANOVA tests.

Source of Variation	df1	df2	MS Between	F Value	P Value
Student's sex	1	1394	3.03	0.003	0.959
Student's age	3	1401	2857.17	2.513	0.057
University	3	1399	7472.45	6.622	0.0002*
Class level	3	1400	3183.89	2.801	0.039*
First-choice faculty	8	1278	3674.01	3.218	0.0013*
First-choice university	8	1257	2954.52	2.576	0.0087*
Academic program	8	1310	2970.33	2.603	0.008*
Intention to become teacher	4	1391	31055.03	29.539	0.000*
Attended teacher college	1	1399	15640.50	13.893	0.0002*
Rank of Faculty of Education	5	1239	5154.51	4.543	0.0004*
M.S. 5 percentage	4	1273	1188.66	1.021	0.395
GPA	4	1377	2725.30	2.390	0.049*
Type of primary school	5	1391	2390.20	2.102	0.063
Type of secondary school	3	1368	713.48	0.622	0.601
Location (GPP) of primary school	2	1350	5463.91	4.816	0.0082*
Location (GPP) of secondary school	2	1334	2569.49	2.246	0.1062
Region of secondary school	4	1344	1395.95	1.215	0.303
Location (GPP) of birthplace	2	1374	4818.21	4.259	0.0143*
Region of birthplace	4	1394	2202.65	1.938	0.102
Location (GPP) of residence	2	1358	4047.07	3.556	0.0288*
Region of residence	4	1390	2739.10	2.412	0.0473*
Family size	3	1391	769.95	0.700	0.552
Birth order	3	1384	1643.50	1.452	0.226
Father's ethnicity	2	1399	3441.46	3.025	0.0489*
Mother's ethnicity	2	1395	2267.30	1.990	0.137
Father's education	6	1319	1141.04	1.038	0.399
Mother's education	6	1318	402.37	0.367	0.900
Father's occupation	7	1393	251.48	0.220	0.981
Mother's occupation	7	1392	943.52	0.826	0.565
Family income	7	1351	1575.72	1.438	0.186
Subjective norms	1	1403	12978.75	11.463	0.0007*

*Significant at .05 level.

6. who are in different class levels,
7. who studied in different academic programs,
8. who received different GPA's in the university,
9. whose primary schools are located in different types of communities,
10. who ranked the Faculty of Education differently as their desirable choices,
11. who definitely intend to become a teacher after graduation and those who do not intend to teach,
12. who attended a teacher college and those who did not attend,
13. who selected different faculties as their first choice in the Entrance Examination,
14. who selected different universities as their first choice in the Entrance Examination, and
15. whose levels of subjective norms are different.

In summary, no significant differences were found in the personal characteristic factors. Of the 12 socioeconomic background factors, only 3 were found to be statistically significant: father's ethnicity, type of community of the place of longest residence, and region of the place of longest residence.

Five out of ten educational background factors--university attended, class level, academic program, GPA, and type of community where the primary school is located--were found to be statistically significant. All of the selected other factors--rank of the Faculty of Education, intention to become a teacher, attendance at a teacher

training college, selection of first-choice faculty, selection of first-choice university, and level of subjective norms--were found to be statistically significant at the .05 level.

Since the aforementioned hypotheses were found to be significant, the next step in the ANOVA was to use the multiple-range comparison to identify which of the subgroups of each factor produced the differences. The analyses for the hypotheses on which statistically significant differences were found are discussed on the following pages.

H_{010} : No differences will be found in attitudes toward the teaching profession among students whose fathers are in different ethnic groups, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3$$

where 1 = Thai 2 = Chinese 3 = Other ethnic groups

Table 13.--Results of the multiple-range comparison of fathers' ethnic groups.

Fathers' Ethnic Groups	df	SS	MS	F	p
Between groups	2	6884.96	3442.48	3.025	0.049*
Within groups	1399	1591896.79	1137.88		
Total	1401	1598781.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_3	\bar{X}_2	\bar{X}_1
	Others	Chinese	Thai
Subset 1	207.86	231.39	234.39

The p value on the F-test was less than .05, indicating there was a possibility of two or more groups differing in their attitudes toward the teaching profession. However, the Scheffé test did not prove to be statistically significant. Thus no difference was found among students whose fathers are in different ethnic groups, in terms of their attitudes toward the teaching profession.

H_{012} : No differences will be found in attitudes toward the teaching profession among students who were born in different types of communities (GPP), as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3$$

where 1 = Low GPP (2000-10,000 million baht)
 2 = Average GPP (10,001-20,000 million baht)
 3 = High GPP (20,001-78,000 million baht)

Table 14.--Results of the multiple-range comparison of types of communities (GPP) of students' birthplaces.

Birthplace (GPP)	df	SS	MS	F	p
Between groups	2	9639.42	4818.21	4.259	0.014*
Within groups	1374	1554251.31	1131.19		
Total	1376	1563887.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_3 High (20,001-78,000)	\bar{X}_2 Average (10,001-20,000)	\bar{X}_1 Low (2,000-10,000)
	230.50	235.07	236.20
Subset 1	<hr/>		
Subset 2	<hr/>		

There were statistically significant differences among students who were born in the high, average, and low GPP communities. As a result of the Scheffé test, it was found that communities with a high GPP (20,001-78,000 million baht) and those with a low GPP (2,000-10,000 million baht) produced the differences. Students who were born in low-GPP communities had significantly more favorable attitudes toward the teaching profession than did those born in high-GPP communities ($\mu_1 > \mu_3$).

H_{014} : No differences will be found in attitudes toward the teaching profession among students who spent the longest time in different types of communities (GPP), as measured by the ATP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3$$

where 1 = Low GPP (2000-10,000 million baht)
 2 = Average GPP (10,001-20,000 million baht)
 3 = High GPP (20,001-78,000 million baht)

Table 15.--Results of the multiple-range comparison of types of communities of the place of longest residence.

Residence (GPP)	df	SS	MS	F	p
Between groups	2	8094.14	4047.07	3.556	0.029*
Within groups	1358	1545635.75	1138.17		
Total	1360	1553729.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_3 High (20,001-78,000)	\bar{X}_2 Average (10,001-20,000)	\bar{X}_1 Low (2,000-10,000)
	230.92	234.62	236.29
Subset 1			
Subset 2			

There were statistically significant differences between students who had spent the longest time in a high-GPP community and those who had spent the longest time in a low-GPP community as the results of the Scheffé indicated ($\mu_1 > \mu_3$). Thus, the high-GPP communities and the low-GPP communities produced the differences in attitudes toward the teaching profession.

H_{015} : No differences will be found in attitudes toward the teaching profession among students who spent the longest time in different regions, as measured by the ATP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$$

where 1 = Bangkok 4 = Northeast region
 2 = Central region 5 = Southern region
 3 = Northern region

Table 16.--Results of the multiple-range comparison of the regions of longest residence.

Residence (Region)	df	SS	MS	F	p
Between groups	4	10958.43	2739.61	2.412	0.047*
Within groups	1390	1478742.44	1135.79		
Total	1394	1589700.00			

*p < .05.

Scheffé ranges for the .05 level:

\bar{X}_1	\bar{X}_2	\bar{X}_3	\bar{X}_5	\bar{X}_4
Bangkok	Central	North	South	Northeast
230.42	234.21	234.52	236.99	238.27

Subset 1

The p value on the F-test was less than .05 ($p = .047$), indicating that there was some possibility of two or more groups being different. However, the results of the Scheffé test did not prove to be statistically significant.

H_{016} : No differences will be found in attitudes toward the teaching profession among students who attend different universities, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

where 1 = Chulalongkorn 3 = Srinakharinwirot
 2 = Kasetsart 4 = Silpakorn

Table 17.--Results of the multiple-range comparison of universities attended.

Universities Attended	df	SS	MS	F	p
Between groups	3	22416.91	7472.30	6.621	0.0008*
Within groups	1399	1578768.64	1128.49		
Total	1492	1601185.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_1 Chulalongkorn	\bar{X}_4 Silpakorn	\bar{X}_2 Kasetsart	\bar{X}_3 Srinakharinwiroj
	229.86	231.66	231.89	239.08
Subset 1				
Subset 2				

There were significant differences among the students attending different universities. The multiple-range comparison (Scheffé) showed that the students who attended Srinakharinwiroj University and those who attended Chulalongkorn University produced the differences. The former had significantly more favorable attitudes toward the teaching profession than did the latter ($\mu_3 > \mu_1$).

H_{017} : No differences will be found in attitudes toward the teaching profession among students who are in different years (class levels) in the university, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4$$

where 1 = freshman 3 = junior
 2 = sophomore 4 = senior

Table 18.--Results of the multiple-range comparison of class levels in the university.

Class Level	df	SS	MS	F	p
Between groups	3	9554.35	3184.78	2.801	0.039*
Within groups	1400	1591767.87	1137.97		
Total	1403	1601322.00			

*p < .05.

Scheffé ranges for the .05 level:

\bar{X}_2 Sophomore	\bar{X}_1 Freshman	\bar{X}_4 Senior	\bar{X}_3 Junior
228.87	234.18	234.72	235.82

Subset 1

The p value was less than .05 ($p = .039$), indicating significant differences between class levels in the university. However, the Scheffé test did not prove to be statistically significant.

H_{018} : No differences will be found in attitudes toward the teaching profession among students who are studying in different academic programs, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9$$

where

1 = Early childhood ed.	6 = Agricultural ed.
2 = Elementary ed.	7 = Home economics ed.
3 = Secondary ed.	8 = Art ed.
4 = Nonformal ed.	9 = Other academic programs
5 = Physical ed.	

Table 19.--Results of the multiple-range comparison of academic programs in the university.

Academic Program	df	SS	MS	F	p
Between groups	8	23763.00	2970.38	2.603	0.008*
Within groups	1310	1495015.38	1141.23		
Total	1318	1518778.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_1	\bar{X}_8	\bar{X}_9	\bar{X}_3	\bar{X}_5
	233.57	226.09	230.49	231.57	233.43
Subset 1					
	\bar{X}_2	\bar{X}_7	\bar{X}_6		
	239.28	240.35	249.76		

As a result of the Scheffé test, statistically significant differences were not found among the various academic programs in the university, even though significant differences existed among the students in these academic programs ($p = .008$).

H_{020} : No differences will be found in attitudes toward the teaching profession among students who received different grade poing averages in the university, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$$

where

1 = 3.5-4.0	4 = 2.0-2.4
2 = 3.0-3.4	5 = 0.0-1.9
3 = 2.5-2.9	

Table 20.--Results of the multiple-range comparison of students' grade point averages.

Grade Point Average	df	SS	MS	F	p
Between groups	4	10902.90	2723.72	2.390	0.049*
Within groups	1377	1570217.50	1140.32		
Total	1381	1581120.00			

*p < .05.

Scheffé ranges for the .05 level:

\bar{X}_5	\bar{X}_4	\bar{X}_1	\bar{X}_3	\bar{X}_2
0.0-1.9	2.0-2.4	3.5-4.0	2.5-2.9	3.0-3.4

Subset 1

Significant differences in attitudes toward the teaching profession were found among students who had different grade point averages in the university, since the p value was less than .05 ($p = .049$). However, the results of the Scheffé test did not prove to be statistically significant.

H_{023} : No differences will be found in attitudes toward the teaching profession among students whose primary schools are in different types of communities (GPP), as measured by the ATP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3$$

where 1 = Low GPP (2000-10,000 million baht)
 2 = Average GPP (10,001-20,000 million baht)
 3 = High GPP (20,001-78,000 million baht)

Table 21.--Results of the multiple-range comparison of types of communities of primary schools.

Primary School Community (GPP)	df	SS	MS	F	p
Between groups	2	10927.83	5463.91	4.816	0.0082*
Within groups	1350	1531685.38	1134.58		
Total	1352	1542613.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_3 High (20,001-78,000)	\bar{X}_2 Average (10,001-20,000)	\bar{X}_1 Low (2000-10,000)
	230.26	235.31	236.32
Subset 1			
Subset 2			

Significant differences were found in the different types of communities in which the primary schools are located, since the p value was less than .05 ($p = .0082$). The results of the Scheffé test showed that students who graduated from primary schools located in low-GPP communities had statistically more favorable attitudes toward the teaching profession than did those who graduated from primary schools in high-GPP communities ($\mu_1 > \mu_3$).

H_{026} : No differences will be found in attitudes toward the teaching profession among students who ranked the Faculty of Education as different choices in the Entrance Examination, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6$$

where 1 = First choice 4 = Fourth choice
 2 = Second choice 5 = Fifth choice
 3 = Third choice 6 = Sixth choice

Table 22.--Results of the multiple-range comparison of the ranking of the Faculty of Education in the Entrance Examination.

Rank of Faculty of Education	df	SS	MS	F	p
Between groups	5	25773.96	5154.59	4.543	0.004*
Within groups	1239	1405891.19	1634.70		
Total	1244	1431664.00			

*p < .05.

Scheffé ranges for the .05 level:

\bar{X}_3	\bar{X}_5	\bar{X}_4	\bar{X}_6	\bar{X}_2	\bar{X}_1
226.39	227.58	229.58	232.77	236.83	238.17

Subset 1

Significant differences in attitudes toward the teaching profession were found among students who ranked the Faculty of Education differently as their desirable choices in the Entrance Examination, since the p value was less than .05 (p = .004). However, the Scheffé test did not prove to be statistically significant.

Ho₂₇: No differences will be found in attitudes toward the teaching profession among students whose levels of definiteness of intention to become a teacher are different, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5$$

where 1 = most certain 4 = not certain
 2 = very definite 5 = never intend
 3 = certain

Table 23.--Results of the multiple-range comparison of the level of definiteness of intention to become a teacher.

Definiteness of Intention	df	SS	MS	F	p
Between groups	4	124221.89	31055.42	29.535	0.000*
Within groups	1391	1462586.81	1051.46		
Total	1395	1586808.00			

*p < .05.

Scheffé ranges for the .05 level:

	\bar{X}_4	\bar{X}_5	\bar{X}_3	\bar{X}_2	\bar{X}_1
	224.24	224.90	228.10	234.58	252.23
Subset 1	<hr/>				
Subset 2			<hr/>		
Subset 3					<hr/>

The results of the Scheffé test showed that there were no statistical differences between students who were not definitely planning to become a teacher, those who never intended to become a teacher, and those who definitely wanted to become a teacher. In addition, no statistical differences were found between those who were most certain to become a teacher and those who had very definite plans to become a teacher after graduation. Nevertheless, the students who were most certain about becoming a teacher after graduation had significantly more favorable attitudes toward the teaching profession than did any other students ($\mu_1 > \mu_4$; $\mu_1 > \mu_5$; $\mu_1 > \mu_3$; $\mu_1 > \mu_2$).

H_{028} : No differences will be found in attitudes toward the teaching profession between students who had attended a teacher training college and those who had not attended, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2$$

where 1 = those who had attended a teacher training college
2 = those who had not attended a teacher training college

Table 24.--Results of the multiple-range comparison of students who had attended and had not attended a teacher training college.

Whether Student Had Attended a Teacher College	df	SS	MS	F	p
Between groups	1	15641.85	15641.84	13.893	0.002*
Within groups	1399	1575144.38	1125.91		
Total	1400	1590786.00			

*p < .05.

t-test for the two groups of students:

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>t</u>	<u>df</u>	<u>p</u>
Attitudes:					
Group 1: attended a teacher college	350	239.24	3.73	1399	0.000*
Group 2: did not attend a teacher college	1050	231.53			

*p < .05.

The t-test was used to measure the differences between two groups of students: those who had attended a teacher college and those who had not attended. The F-test results showed that significant

differences were found between these two groups ($\mu_1 \neq \mu_2$). On the one-tailed test, it was found that the students who had attended a teacher college had significantly more favorable attitudes toward the teaching profession than did those who had not attended, since the t value was positive ($\mu_1 > \mu_2$).

H_{029} : No differences will be found in attitudes toward the teaching profession among students who selected different faculties as their first choice in the Entrance Examination, as measured by the ATP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9$$

where

1 = Agriculture	6 = Natural science
2 = Law	7 = Engineering
3 = Medical science	8 = Education
4 = Humanities	9 = Social sciences
5 = Fine arts	

Table 25.--Results of the multiple-range comparison of the first-choice faculty selected in the Entrance Examination.

Selected Faculty	df	SS	MS	F	p
Between groups	8	29394.05	3674.25	3.218	0.0013*
Within groups	1278	1459396.57	1141.93		
Total	1286	1488790.00			

* $p < .05$.

Scheffé ranges for the .05 level:

	\bar{X}_7	\bar{X}_1	\bar{X}_9	\bar{X}_3	\bar{X}_5
	220.02	226.69	228.40	229.91	233.52
Subset 1	<hr/>				
	\bar{X}_2	\bar{X}_6	\bar{X}_8		
	235.50	235.53	238.18		

Even though significant differences were found in attitudes toward the teaching profession among students who selected different faculties as their first choice in the Entrance Examination ($p = .0013$), the Scheffé test did not prove to be statistically significant.

H_{030} : No differences will be found in attitudes toward the teaching profession among students who selected different universities as their first choice in the Entrance Examination, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2 = \mu_3 = \mu_4 = \mu_5 = \mu_6 = \mu_7 = \mu_8 = \mu_9$$

where 1 = Chulalongkorn	6 = Kohn Kaen
2 = Kasetsart	7 = Prince of Songkla
3 = Silpakorn	8 = Thammasat
4 = Srinakharinwiroj	9 = Mahidol
5 = Chiang Mai	

Table 26.--Results of the multiple-range comparison of first-choice universities selected in the Entrance Examination.

Selected Universities	df	SS	MS	F	p
Between groups	8	23534.21	2954.28	2.575	0.008*
Within groups	1257	1442002.31	1147.18		
Total	1265	1465636.00			

* $p < .05$.

Scheffé ranges for the .05 level:

	\bar{X}_6	\bar{X}_9	\bar{X}_3	\bar{X}_8	\bar{X}_1	\bar{X}_7
	215.09	228.03	230.20	230.81	231.65	233.63
Subset 1	<hr/>					
	\bar{X}_2	\bar{X}_5	\bar{X}_4			
	235.13	236.77	240.77			

The p value on the F-test was less than .05, indicating that there was some possibility of two or more groups being different. However, the Scheffé test did not prove to be statistically significant.

H_{031} : No differences will be found in attitudes toward the teaching profession between students with high subjective-norm levels and those with low subjective-norm levels, as measured by the ATTP scale.

This hypothesis can be written in statistical notation as follows:

$$H_0: \mu_1 = \mu_2$$

where 1 = Low subjective-norm level (score 0-8)
2 = High subjective-norm level (score 9-16)

Table 27.--Results of the multiple-range comparison of subjective-norm levels.

Subjective Norms	df	SS	MS	F	p
Between groups	1	12978.75	12978.75	11.463	0.007*
Within groups	1403	1588466.63	1132.19		
Total	1404	1601445.00			

*p < .05.

t-test for the two subjective-norm levels:

<u>Variable</u>	<u>N</u>	<u>Mean</u>	<u>t</u>	<u>df</u>	<u>p</u>
Attitudes:					
Group 1	769	230.80			
Group 2	636	236.91	-3.39	1403	0.001*

*p < .05.

Group 1 refers to the students with a low subjective-norm level or those who hardly believe and/or tend to follow their referent groups in selecting a future profession. Group 2 refers to those with a high subjective-norm level or those who believe and/or tend to follow their referent groups in selecting a future profession.

The results of the t-test showed that there were statistically significant differences between these two groups ($\mu_1 \neq \mu_2$). For the one-tailed test, because the obtained t value was negative, the students with a high subjective-norm level were shown to have significantly more favorable attitudes toward the teaching profession than those with a low subjective-norm level ($\mu_2 > \mu_1$).

In summary, after the multiple-range comparison of the subgroups of 14 factors for which the p value was less than .05, only seven factors were found to be statistically significant. As a result of the multiple-range comparison, Scheffe, and/or t-test, statistically significant differences were found for:

1. type of community (GPP) of the student's birthplace,
2. type of community (GPP) of the student's longest residence,
3. university attended,

4. type of community (GPP) in which the primary school is located,
5. whether the student had attended a teacher training college,
6. certainty of the student's intention to become a teacher after graduation, and
7. subjective-norm level in the student's selection of a future profession.

Pearson Product-Moment Correlation Coefficient

In this analysis, the strength of the linear relationship between two or more variables is measured. These correlation coefficients indicate the degree to which variation (or change) in one variable is related to variation (or change) in another. In the present study, the Pearson product-moment correlation coefficient was used to measure the relationship between attitudes toward the teaching profession and the independent variables. Because the Pearson correlation coefficient is the method used to compare quantitative variables, 16 independent variables from the personal characteristic and background factors of students enrolled in the Faculties of Education were selected for analysis.

The intercorrelation coefficients or correlation matrix, which displays the degree to which variation in one variable is related to variation in another, is presented in Table 28, where

- 1 = student's age (years),
- 2 = years in the university (class level),
- 3 = rank of the Faculty of Education

- 4 = definiteness of intention to become a teacher,
- 5 = M.S. 5 percentage on the final exam,
- 6 = GPA in the university,
- 7 = type of community (GPP) in which the primary school is situated,
- 8 = type of community (GPP) in which the secondary school is situated,
- 9 = type of community (GPP) of birthplace,
- 10 = type of community (GPP) of longest residence,
- 11 = number of children in the family,
- 12 = birth order in the family,
- 13 = father's educational level,
- 14 = mother's educational level,
- 15 = family income level,
- 16 = attitude toward the teaching profession, and
- 17 = subjective-norm level (belief that the referent groups think he/she should become a teacher).

A summary tabulation of the Pearson product-moment correlation coefficients, which shows the relationship between the 16 variables and attitudes toward the teaching profession, is presented in Table 29. The table shows that there were relationships between attitudes toward the teaching profession and the student's age, rank of the Faculty of Education, definiteness of intention to become a teacher, GPA, type of community (GPP) in which the primary school is situated, type of community (GPP) in which the secondary school is

Table 28.--Pearson product-moment correlation matrix (N = 1,405).

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	1.00																
2	.50	1.00															
3	-.32	-.33	1.00														
4	.17	.09	-.34	1.00													
5	-.03	-.09	.13	-.00	1.00												
6	-.01	.20	-.06	.04	.17	1.00											
7	-.29	-.19	.15	-.12	.01	.08	1.00										
8	-.36	-.22	.24	-.19	.05	.09	.67	1.00									
9	-.30	-.18	.14	-.13	.00	.08	.80	.61	1.00								
10	-.27	-.18	.15	-.14	.02	.07	.79	.65	.73	1.00							
11	.13	.08	-.06	.04	-.05	.02	-.13	-.09	-.11	-.12	1.00						
12	.03	.01	.01	-.03	-.07	.02	-.06	-.04	-.04	-.04	.80	1.00					
13	-.16	-.08	.12	-.13	.09	.05	.08	.11	.05	.10	-.22	-.15	1.00				
14	-.16	-.10	.10	-.15	.09	.08	.08	.12	.06	.10	-.11	-.06	.70	1.00			
15	-.26	-.16	.16	-.11	.09	.10	.21	.24	.21	.19	-.19	-.18	.41	.40	1.00		
16	-.08	.03	-.08	.22	.04	.06	-.07	-.08	-.06	-.07	.03	.01	-.02	-.03	-.00	1.00	
17	.12	.12	-.17	.30	.01	-.03	-.15	-.14	-.14	-.14	-.01	-.05	.02	-.03	-.02	.10	1.00

situated, type of community (GPP) of birthplace, type of community (GPP) of longest residence, and subjective-norm levels of the students, since the p values were less than .05. Only four variables--student's age, definiteness of intention to become a teacher, GPA, and subjective-norm levels--had a positive relationship with attitudes toward the teaching profession. The other variables had a negative relationship with such attitudes.

Table 29.--Relationship between selected personal characteristic and background factors of education students and their attitudes toward the teaching profession (N = 1,405).

Variables	Simple r	p
Student's age	0.0807	0.001*
Years in the university (class level)	0.0275	0.152
Rank of the Faculty of Education	-0.0831	0.001*
Intention to become a teacher	0.2196	0.000*
M.S. 5 or M.6 percentage	0.0405	0.065
Grade point average (GPA)	0.0565	0.017*
Location of primary school (GPP)	-0.0715	0.004*
Location of secondary school (GPP)	-0.0761	0.002*
Birthplace (GPP)	-0.0601	0.012*
Place of longest residence (GPP)	-0.0691	0.005*
Family size	0.0278	0.149
Birth order in the family	0.0051	0.424
Father's educational level	-0.0193	0.235
Mother's educational level	-0.0269	0.157
Family income (baht per month)	-0.0008	0.488
Student's subjective-norm level	0.0988	0.000*

*p < .05.

The coefficients suggest that students who held positive attitudes toward the teaching profession were older, ranked the Faculty of Education as their desirable choice, had a strong intention to become a teacher after graduation, had good grade point averages, had attended primary and secondary schools in communities with a low Gross Provincial Product (GPP), were born and resided for the longest time in low-GPP communities, and believed that the referent groups thought they should become teachers.

Summary of Descriptive Study

The analysis of data suggested that, in general, students in the Faculties of Education in selected Thai government universities had favorable attitudes toward the teaching profession. The profession still maintains its prestigious and respectable status. However, certain persisting problems related to the profession prevent students from entering the teaching field. Students reported that they believed teachers receive too low salaries, that teaching permits slow professional progress, and that teaching is boring, routine, unexciting, and hard work.

The results of analysis of variance (ANOVA) and Pearson product-moment correlation coefficient testing showed that the following factors produced the differences in and/or were related to attitudes toward the teaching profession:

<u>Personal Characteristics</u>	<u>Socioeconomic Background</u>	<u>Educational Background</u>	<u>Other Selected Factors</u>
Age	Birthplace	University attended	First-choice faculty selected in the Entrance Examination
	Residence	Class level	First-choice university selected in the Entrance Examination
	Parents' occupation	Academic program	Rank of Faculty of Education selected in the Entrance Examination
	Parents' ethnic group	Type of primary school	Intention to become a teacher
		Type of secondary school	Whether student attended a teacher training college
		Location of primary school	Referent groups in career decisions
		Location of secondary school	

Some of the factors found to be significant in this study supported the findings of other research on attitudes toward the teaching profession. Experience in professional training, the selection of desirable choices in the Entrance Examination, university attended, class level in the university, academic program, grade point average in the university, location of primary and secondary schools, and types of communities of birthplace and longest residence were found in this study to produce significant differences in attitudes toward the teaching profession. However, some of these factors, namely,

class level, academic program, grade point average, type of secondary school attended, and rank of Faculty of Education selected as well as first-choice faculty and university selected in the Entrance Examination have not been proven in other studies to be statistically significant. Student's sex, family size, and income level, which were found in other studies to produce significant differences in attitudes, were not found to be significant in this study. Moreover, it is interesting that a 1977 research study found that students from Bangkok had more favorable attitudes toward the teaching profession than did those outside of Bangkok. But the findings of the present study were just the opposite. It was found that students who were born, resided, and attended primary school in communities with a low GPP, which are provincial areas, had more favorable attitudes toward the teaching profession than did students from average- and high-GPP communities.

Finally, factors that were not proven to be statistically significant should not be overlooked. The inconsistencies found in the results of this study and others may have resulted from the lack of control over a great many factors beyond an individual's control. Also, knowing which factors do not differentiate is as important in many types of decisions as is knowing those that do set persons, elements, and other factors apart.

Predictive Study

Multiple Regression Analysis

Multiple regression analysis (MRA) is the statistical procedure used to separate the effects of independent variables in multiple

regression. It shows the extent to which variation in independent variables is related to variation in a dependent variable. This analysis is particularly useful in determining which variables or factors affect the dependent variable. In this study, MRA was introduced to study attitudes toward the teaching profession (the dependent variable). Of major interest was the relationship between selected independent variables and this dependent variable. The objective of MRA is to find the beta weight or regression coefficient of each independent variable. The square of the beta value (β) shows the amount of variance in attitudes toward the teaching profession explained by each independent variable. The unstandardized regression coefficient (B), or the score weight, shows the effect of one unit change in the independent variable or change in attitudes toward the teaching profession. The multiple correlation coefficient (R) shows the relationship between independent variables and the dependent variable. The coefficient of determination (R^2) indicates the proportion of variation in the dependent variable explained by independent variables. The R^2 change for each variable is taken as the component of variation attributable to that variable. The F ratio, the test of significance, is the test for a specific regression coefficient. The overall F ratio is the test for goodness of fit of the regression equation.

In the beginning, the categorical variables are grouped as dummy variables to transform the categorical variables into numerical ones. For instance, sex is a categorical variable; it is then grouped as male (yes=1, no=0), female (yes=1, no=0). As a result of this procedure, the number of independent variables increases.

The first step in MRA is to compute a simple bivariate correlation for all the variables, which is shown by the r value. This analysis was undertaken to select only those variables that were significantly ($p < .05$) related to attitudes toward the teaching profession. In this way, the variables that had a low correlational relationship with the dependent variable were disregarded. Table 30 presents the simple bivariate correlation relationship between each independent variable and attitudes toward the teaching profession. From the table, it can be seen that although a relationship exists, the correlations are somewhat low: 0 to .22 for positive relationships and $-.10$ the highest correlation coefficient for the many negative relationships. After the simple bivariate correlation, 37 out of 103 independent variables were found to be significant at the .05 level.

One of the problems in MRA is multicollinearity, or the situation in which some or all of the independent variables are highly intercorrelated. The greater the intercorrelation of the independent variables, the lower the reliability of the relative importance indicated by the regression coefficients. One of the solutions for this problem is to use only one of the variables in the highly correlated set to represent the common underlying dimension.¹ In this study, the independent variables for which the intercorrelations were higher than or equal to .70 were reexamined to select one variable in each set. (See page 126.) Table 31 shows the intercorrelation matrix of the 38 variables selected on the basis of their value at the .05 level (37 independent variables and the dependent variable). From the table, it is seen that 17 variables were highly correlated.

Table 30.--Simple bivariate correlation for multiple regression analysis, showing the relationship between personal characteristic and background factors of education students and attitudes toward the teaching profession.

Variables	Simple r	p
Student's sex:		
Male	0.0001	0.498
Female	0.0035	0.448
Student's age	0.0807	0.001*
Years in the university (class level)	0.0275	0.152
University:		
Chulalongkorn	-0.0814	0.001*
Kasetsart	-0.0258	0.167
Srinakharinwiroj	0.1155	0.001*
Silpakorn	-0.0183	0.247
Academic program:		
Early Childhood Education	-0.0209	0.216
Elementary Education	0.0790	0.002*
Secondary Education	-0.0440	0.049*
Nonformal Education	0.0235	0.190
Physical Education	-0.0012	0.482
Agricultural Education	0.0646	0.008*
Home Economics Education	0.0242	0.183
Art Education	-0.0338	0.103
Other programs	-0.0466	0.040*
Selected first-choice faculty:		
Agriculture	-0.0357	0.090
Law	0.0115	0.334
Medical Science	-0.0375	0.080
Humanities	-0.0001	0.498
Fine Arts	-0.0002	0.497
Natural Sciences	0.0097	0.358
Engineering	-0.0678	0.006*
Education	0.1144	0.001*
Social Sciences	-0.0645	0.008*
Selected first-choice university:		
Chulalongkorn	-0.0417	0.059
Kasetsart	0.0163	0.271
Silpakorn	-0.0191	0.237
Srinakharinwiroj	0.1014	0.001*
Chiang Mai	0.0193	0.234
Khon Kaen	-0.0486	0.034*
Prince of Songkla	0.0001	0.498
Thammasat	-0.0308	0.124
Mahidol	-0.0343	0.099

Table 30.--Continued.

Variables	Simple r	p
Rank of Faculty of Education	-0.0831	0.001*
Intention to become a teacher	0.2196	0.000*
Attended a teacher training college:		
Attended	0.0970	0.000*
Did not attend	-0.1037	0.000*
M.S. 5 or M.6 percentage	0.0405	0.065
Grade point average (GPA)	0.0565	0.017*
Type of primary school:		
Local administration	0.0559	0.018*
Municipal	0.0099	0.355
Under MOE	0.0150	0.287
Private	-0.0813	0.001*
Demonstration	0.0278	0.149
Other types	-0.0066	0.403
Type of secondary school:		
Government	-0.0124	0.321
Private	-0.0227	0.197
Demonstration	0.0259	0.166
Other types	0.0160	0.275
Location of primary school (GPP)	-0.0715	0.004*
Location of secondary school (GPP)	-0.0761	0.002*
Region in which secondary school is situated:		
Bangkok	-0.0640	0.008*
Central	0.0185	0.244
North	0.0071	0.395
Northeast	0.0176	0.255
South	0.0327	0.111
Birthplace (GPP)	-0.0601	0.012*
Region of birthplace:		
Bangkok	-0.0696	0.005*
Central	0.0138	0.302
North	0.0161	0.273
Northeast	0.0330	0.108
South	0.0346	0.098
Place of longest residence (GPP)	-0.0691	0.005*

Table 30.--Continued.

Variables	Simple r	p
Region of place of longest residence:		
Bangkok	-0.0737	0.003*
Central	0.0129	0.315
North	0.0082	0.379
Northeast	0.0507	0.029*
South	0.0342	0.100
Family size	0.0278	0.149
Birth order in the family	0.0051	0.424
Father's ethnicity:		
Thai	0.0444	0.048*
Chinese	-0.0350	0.095
Other	-0.0539	0.022*
Mother's ethnicity:		
Thai	0.0472	0.038*
Chinese	-0.0542	0.021*
Others	-0.0040	0.441
Father's educational level	-0.0193	0.235
Mother's educational level	-0.0269	0.157
Father's occupation:		
Death	0.0146	0.292
No occupation	0.0179	0.251
Government employee	-0.0009	0.486
Business or industry employee	0.0052	0.423
Private business	-0.0159	0.276
Teacher	0.0122	0.324
Farmer	-0.0082	0.379
Other occupations	-0.0147	0.292
Mother's occupation:		
Death	0.0023	0.466
No occupation or housewife	-0.0129	0.315
Government employee	0.0464	0.041*
Business or industry employee	0.0213	0.212
Private business	-0.0341	0.101
Teacher	-0.0200	0.226
Farmer	0.0179	0.251
Other occupations	0.0031	0.454
Family income (baht per month)	-0.0008	0.488

Table 30.--Continued.

Variables	Simple r	p
Having father as subjective norm	0.0970	0.001*
Having mother as subjective norm	0.1164	0.001*
Having relative as subjective norm	0.0679	0.005*
Having teacher as subjective norm	0.0456	0.044*
Having friend as subjective norm	-0.0075	0.389*
Overall subjective norm	0.0988	0.000*

*p < .05.

<u>Set</u>	<u>Variables</u>	<u>Select</u>
1	Attended a teacher college Did not attend a teacher college Select Srinakharinwiroj University as first choice	Select Srinakharinwiroj University as first choice
2	Birthplace (GPP) Location of primary school (GPP) Place of the longest residence (GPP)	Birthplace (GPP)
3	Having father as subjective norm Having mother as subjective norm Having relative as subjective norm Having teacher as subjective norm Level of subjective norms	Level of subjective norms
4	Father is Thai Mother is Thai Mother is Chinese	Mother is Thai

Table 31.—Interconversion matrix for multiple regression analysis.

38	1.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
----	------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Key:

- 1 Index's age (years)
- 2 Sex of the family of education
- 3 Highest level of education
- 4 Highest level of training college
- 5 Highest level of training college
- 6 Highest level of training college
- 7 Highest level of training college
- 8 Highest level of training college
- 9 Highest level of training college
- 10 Highest level of training college
- 11 Highest level of training college
- 12 Highest level of training college
- 13 Highest level of training college
- 14 Highest level of training college
- 15 Highest level of training college
- 16 Highest level of training college
- 17 Highest level of training college
- 18 Highest level of training college
- 19 Highest level of training college
- 20 Highest level of training college
- 21 Highest level of training college
- 22 Highest level of training college
- 23 Highest level of training college
- 24 Highest level of training college
- 25 Highest level of training college
- 26 Highest level of training college
- 27 Highest level of training college
- 28 Highest level of training college
- 29 Highest level of training college
- 30 Highest level of training college
- 31 Highest level of training college
- 32 Highest level of training college
- 33 Highest level of training college
- 34 Highest level of training college
- 35 Highest level of training college
- 36 Highest level of training college
- 37 Highest level of training college
- 38 Highest level of training college

These intercorrelated variables were selected on the basis of the higher simple correlation (the r value). As a result, 25 independent variables and a dependent variable were entered into the multiple regression analysis. The following are the independent variables selected to compute the multiple regression analysis.

<u>Variables</u>	<u>r</u>	<u>p</u>
Personal characteristics		
Student's age	0.08	0.001
Socioeconomic background		
Mother is Thai	0.05	0.038
Mother is government employee	0.05	0.041
Father is neither Thai nor Chinese	-0.05	0.022
Birthplace (GPP)	-0.06	0.012
Birthplace: Bangkok	-0.07	0.005
Residence: Northeast	0.05	0.029
Educational background		
University attended:		
Chulalongkorn	-0.08	0.001
Srinakharinwiroj	0.12	0.001
Academic program:		
Elementary education	0.08	0.002
Secondary education	-0.04	0.049
Agricultural education	0.06	0.008
Other programs	-0.05	0.040
GPA	0.06	0.017
Type of primary school:		
Local administration	0.06	0.018
Private	-0.08	0.001
Location of secondary school (GPP)	-0.08	0.002
Region of secondary school (GPP)	-0.06	0.008

<u>Variables</u>	<u>r</u>	<u>p</u>
Selected other factors		
Rank of Faculty of Education	-0.08	0.001
Intention to become a teacher	0.22	0.000
First-choice faculty:		
Engineering	-0.07	0.006
Education	0.11	0.001
Social Science	-0.06	0.008
First-choice university: Khon Kaen	-0.05	0.034
Level of subjective norms	0.10	0.000

In the analysis, independent variables were entered individually into the regression equation on the basis of the following criteria, according to the SPSS program:²

1. The maximum number of independent variables that will be entered into the analysis is 26.
2. The minimum F ratio computed in a test for significance of a regression coefficient is no smaller than 3.8, which is the significance level at .05.
3. The tolerance value of an independent variable being considered for inclusion, which is the proportion of the variance of that variable not explained by the independent variables already in the regression equation, is no less than .40. This intermediate value of .40 would indicate that 40% of the variance of a potential independent variable is unexplained by predictors already entered.

Table 32 presents the results of the multiple regression analysis. Seven variables--the intention to become a teacher after graduation, study of Agricultural Education, mother is a government employee, grade point average in the university, attend Srinakharinwirot

University at the Prasarnmitr campus, attend Chulalongkorn University, and father is neither Thai nor Chinese--were found to have an influence on attitudes toward the teaching profession. Among these variables, the intention to become a teacher after graduation showed the highest correlation with attitudes ($r = .22$). Attending Srinakharinwirot University at Prasarnmitr campus was the second highest correlated variable, with $r = .12$. When considering the beta value (β), the data suggested that, again, the intention to become a teacher after graduation is the best predictor of attitudes toward the teaching profession, with a significant beta value of .21. This factor can explain about 5% of the variation in attitudes ($R^2 = .05$).

Together, all seven factors explained 7% of the variation in attitudes ($R^2 = .07$). The overall relationship between all these factors and attitudes toward the teaching profession was .27, since $R = .27$. Six variables other than the intention to become a teacher accounted for only a very small variation in attitudes, since R^2 change ranged between 0.003 and 0.005 and R^2 increased by only 2% (from .05 to .07) of the variation. The intention to become a teacher, studying Agricultural Education, mother is a government employee, grade point average in the university, and attending Srinakharinwirot University had a positive influence, whereas attending Chulalongkorn University and father is neither Thai nor Chinese had a negative influence on attitudes toward the teaching profession.

It should be recognized that some factors in Table 32, such as study of Agricultural Education, mother is a government employee, and father is neither Thai nor Chinese, may not lead to meaningful

Table 32.--Summary table of multiple regression analysis showing factors that influence attitudes toward the teaching profession.

Variables	R	R ²	R ² Change	r	B	β	F	Rank of β
Intention to become a teacher	.22	.05	.048	.21	5.35	.205	59.47	1
Attend Chulalongkorn University	.23	.05	.005	-.08	-3.50	-.049	2.45	6
Mother is government employee	.24	.06	.005	.05	9.21	.066	6.43	3
GPA in the university	.25	.06	.004	.06	2.42	.065	6.00	4
Study of Agricultural Education	.25	.06	.003	.06	18.28	.072	7.31	2
Father is neither Thai nor Chinese	.26	.07	.003	-.05	-28.76	-.060	5.35	7
Attend Srinakharinwirotj University (Prasarnmitr campus)	.27	.07	.003	.11	4.52	.063	3.95	5

Constant = 209.97
Sample size = 1,405
F = 15.25 (p < .001)
R² = .07

generalization because they represent small groups and their r values, R^2 change values, and beta values are low. However, it does not mean that these factors should not be considered in analyzing attitudes toward the teaching profession.

The results of the multiple regression analysis indicated that intention to become a teacher after graduation is the best predictor of attitudes toward the teaching profession ($\beta = .21$). For the practical use of predictors, grade point average should also be included because it applies to everyone in the population.

Chapter V contains a summary of the study, conclusions based on the statistical analyses described in Chapter IV, a discussion of the findings, and recommendations for further research.

Notes--Chapter IV

¹N. H. Nie, C. Hull, J. Jenkins, K. Steinbrenner, and D. Bent.
SPSS: Statistical Package for the Social Sciences, 2nd ed. (New York:
McGraw-Hill Book Company, 1975), pp. 340-41.

²Ibid., p. 346.

CHAPTER V

SUMMARY, FINDINGS, AND CONCLUSIONS

Introduction

Chapter V contains a summary of the study and a discussion of the results from the analysis of data.

Summary of the Study

Purposes of the Study

The purposes of the study were (1) to investigate attitudes toward the teaching profession of students presently enrolled in Faculties of Education in selected Thai government universities, (2) to describe the factors that produce differences in and/or are related to such attitudes, and (3) to analyze the predictors of attitudes toward the teaching profession.

Design and Methodology of the Study

The population of the study was the undergraduate students enrolled in Faculties of Education in four Thai government universities during the 1979-80 academic year. One-third of the students in each class level at Chulalongkorn University, Kasetsart University, Srinakharinwirot University, and Silpakorn University were randomly selected. The total number of students in the study sample was 1,405.

The instrument used to collect the data in this study was the Attitude Toward the Teaching Profession scale (ATTP scale), which was constructed in 1977 by the Research Department of the Faculty of Education at Chulalongkorn University. The questionnaire was administered in classrooms during the second semester of the academic year, from December 19, 1979, to January 17, 1980.

The statistical analysis was conducted on the IBM 370 computer at the National Statistical Office of the Data-Processing Center of Thailand. In the descriptive portion of the study, one-way analysis of variance and Pearson product-moment correlation coefficient were used to analyze the data. In the predictive part of the research, multiple regression analysis was employed to analyze the predictors of attitudes toward the teaching profession. The significance level was set at .05 for all analyses.

Findings of the Study

In general, students had favorable attitudes toward the teaching profession. However, the characteristics of the profession that a majority of students reported they did not like were slow professional advancement; the low salary for teachers; and the hard, routine, unenjoyable, and unexciting work involved in teaching. Also, they said they believed teaching made one a fussy and negative person.

The results of the descriptive portion of the study showed that type of community (GPP) of the student's birthplace and residence, location of primary school, university attended, class level in the university, academic program, grade point average in the university,

rank of Faculty of Education selected in the Entrance Examination, first-choice faculty and university selected, intention to become a teacher after graduation, whether the student had attended a teacher training college, father's ethnic group, and level of subjective norms (whether the student believed the referent group in selecting a future profession) produced the differences in students' attitudes toward the teaching profession. Student's age, grade point average in the university, intention to become a teacher after graduation, and level of subjective norms had a positive relationship with attitudes, whereas rank of Faculty of Education selected in the Entrance Examination, type of community (GPP) in which the primary and secondary schools were located, and type of community (GPP) of the student's birthplace and residence had a negative relationship to attitudes toward the teaching profession.

In the predictive portion of the study, the multiple regression analysis showed that intention to become a teacher after graduation was the best predictor of attitudes toward the teaching profession. It had the highest correlation ($r = .22$) and beta weight ($\beta = .21$). Other predictors of such attitudes were studying Agricultural Education, mother is a government employee, grade point average in the university, attending Srinakharinwirot University, attending Chulalongkorn University, and an unusual and interesting factor: father is neither Thai nor Chinese. The intention to become a teacher, studying Agricultural Education, mother is a government employee, grade point average, and attending Srinakharinwirot University had a positive influence on attitudes, whereas attending Chulalongkorn University

and father is neither Thai nor Chinese had a negative influence. For practical use of these results, the intention to become a teacher and grade point average, which can be generalized to the entire population, are recommended.

Conclusion

This study has identified some of the problems related to the teaching profession and teacher training institutions in Thailand. It seems apparent that some better form of screening is needed for the selection of students who enroll in the faculties of education. The study shows that there are some predictors that might be useful in the selection process. How these and other factors might be utilized must be a subject for future, more detailed research.

It appears also that some changes need to be effected to make the teaching profession more attractive to prospective teachers and to society as a whole. One might speculate on possible ways of doing this:

- Improving salaries and benefits.
- Making people more aware of the important role teachers and schools play in the development of the country.
- Changing the traditional/cultural expectations of society toward the teachers and schools.
- Encouraging the concept of community schools.
- Relating more clearly the curriculum to the wants and needs of society.
- Changing instructional techniques to encourage learning for the sake of learning, thereby making the educational experience more meaningful and enjoyable to both students and teachers.
- Discouraging the use of rote learning and emphasis on memorization.

The purpose of the study was to describe a problem in the educational system of Thailand and to ascertain if there were predictors that might help to alleviate the problem. It was the purpose of this study to provide a foundation on which other studies might build.

APPENDICES

APPENDIX A

COVER LETTERS

APPENDIX A

ที่ สร.๑๑๐๓/๖๓๔๓๔

สำนักงานคณะกรรมการการศึกษาแห่งชาติ

๒๗ พฤศจิกายน ๒๕๒๒

เรื่อง ขออนุญาตให้นักศึกษาปริญญาเอกเก็บข้อมูล

เรียน คณะศึกษาศาสตร์

ด้วย นางชนิดา รัชพลเมือง นักศึกษาปริญญาเอกจาก Michigan State University มีความประสงค์จะทำวิทยานิพนธ์เรื่อง A Study of Attitude Toward the Teaching Profession of the Faculty of Education Students in the Selected Thai Universities ซึ่งใช้นิสิต-นักศึกษาในคณะครุศาสตร์และคณะศึกษาศาสตร์ เป็นกลุ่มตัวอย่าง ในฐานะที่ผมเป็นอาจารย์ที่ปรึกษาผู้หนึ่งของนักศึกษาผู้นี้ จึงใคร่ขออนุญาตจากท่านในเรื่องต่อไปนี้


๑. ขออนุญาตให้ นางชนิดา รัชพลเมือง ใช้แบบทัศนคติต่อวิชาชีพครู ซึ่งผู้ช่วยศาสตราจารย์ ดร.สมหวัง พิธิยานุวัฒน์ และ นางสาวนิยะดา ศรีจันทร์ เป็นผู้สร้างขึ้น ในการเก็บรวบรวมข้อมูลเพื่อการวิจัยเรื่องนี้

๒. ขออนุญาตให้นิสิต-นักศึกษาที่กำลังศึกษาอยู่ในคณะครุศาสตร์ชั้นปีที่ ๑, ๒, ๓, และ ๔ ตอบแบบวัดทัศนคติต่อวิชาชีพครู

สำหรับรายละเอียดเกี่ยวกับเรื่องนี้ นางชนิดา รัชพลเมือง จะมาเรียนชี้แจงด้วยตนเองอีกครั้งหนึ่ง

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จักเป็นพระคุณยิ่ง

ขอแสดงความนับถืออย่างสูง



(นายสีปพนธ์ เกตุทัต)

เลขาธิการคณะกรรมการการศึกษาแห่งชาติ

กองวิจัยการศึกษา

โทร. ๒๕๑๑๑๔๔

สำเนา

ที่ สร.๑๑๐๓/

สำนักงานคณะกรรมการการศึกษาแห่งชาติ

พฤษภาคม ๒๕๒๒

เรื่อง ขออนุญาตเฝ้าสังเกตให้นักศึกษาปริญญาเอกเก็บข้อมูล
เรียน

ด้วย นาง ขนิษฐา รัชพลเมือง นักศึกษาปริญญาเอกจาก Michigan State University มีความประสงค์จะทำวิทยานิพนธ์ เรื่อง A Study of Attitude Toward the Teaching Profession of the Faculty of Education Students in the Selected Thai Universities ซึ่งใช้นิสิต-นักศึกษาในคณะครุศาสตร์และคณะศึกษาศาสตร์ เป็นกลุ่มตัวอย่าง ในฐานะที่ผมเป็นอาจารย์ที่ปรึกษาผู้หนึ่งของนักศึกษาผู้นี้ จึงใคร่ขออนุญาตเฝ้าสังเกตจากท่าน ขออนุญาตให้นิสิตที่กำลังศึกษาอยู่ในคณะศึกษาศาสตร์-ครุศาสตร์ ชั้นปีที่ ๑, ๒, ๓ และ ๔ ตอบแบบวัดทัศนคติต่อวิชาชีพครู สำหรับรายละเอียดเกี่ยวกับเรื่องนี้ นาง ขนิษฐา รัชพลเมือง จะมาเรียนชี้แจงด้วยตนเองอีกครั้งหนึ่ง

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์ด้วย จักเป็นพระคุณยิ่ง.

ขอแสดงความนับถืออย่างสูง



(นายลีปนันท์ เกตุทัต)

เลขาธิการคณะกรรมการการศึกษาแห่งชาติ

กองวิจัยการศึกษา

โทร. ๒๕๑๑๔๔

คณบดีคณะศึกษาศาสตร์ มหาวิทยาลัยศิลปากร

" มหาวิทยาลัยศรีนครินทรวิโรฒ ประสานมิตร

" มหาวิทยาลัยเกษตรศาสตร์

Office of the National
Education Commission

November 1979

Dean of Faculty of Education

Dear Sir:

Allow me to introduce Mrs. Chanita Rukspollmuang, a doctoral candidate from Michigan State University. She is presently involved in a research project: "A Study of Attitudes Toward the Teaching Profession of Faculty-of-Education Students in Selected Thai Universities." As I am one of her research advisors, I would like to ask for your cooperation in:

1. permitting Mrs. Chanita Rukspollmuang to use the Attitude Toward the Teaching Profession Scale (ATTP scale) constructed by Dr. Somwung Pitayanuwat and Miss Niyada Srichan of the Research Department, College of Education, Chulalongkorn University, which was selected as the research instrument.
2. allowing the freshman, sophomore, junior, and senior students presently enrolled in the Faculty of Education to answer the ATTP scale.

Mrs. Chanita Rukspollmuang will contact you personally.

Thank you for your cooperation.

Sincerely,

Sippanondha Ketudat
Secretary-General,
Office of the National
Education Commission

APPENDIX B

CHARACTERISTICS OF THE EDUCATION STUDENTS
IN THE SAMPLE

APPENDIX B

Student's sex:

Sex	Number	%
Male	577	41.1
Female	819	58.3
No response	9	0.0
Total	1,405	100.0

Student's age:

Age (years)	Number	%
Below 17	28	2.0
18-20	567	40.4
21-23	471	33.5
24 and above	339	24.1
Total	1,405	100.0

University in which student is presently enrolled:

University	Number	%
Chulalongkorn	500	35.7
Kasetsart	301	21.4
Srinakharinwiroj	468	33.3
Silpakorn	134	9.5
No response	2	0.0
Total	1,405	100.0

Class level in the university:

Class Level	Number	%
Freshman	342	24.3
Sophomore	319	22.7
Junior	378	26.9
Senior	365	26.0
No response	1	0.0
Total	1,405	100.0

Academic programs studied in the university:

Academic Program	Number	%
Early Childhood Education	7	0.5
Elementary Education	251	17.8
Secondary Education	501	35.7
Nonformal Education	81	5.8
Physical Education	110	7.8
Agricultural Education	25	1.8
Home Economics Education	20	1.4
Art Education	32	2.3
Others	292	20.8
No response	86	6.1
Total	1,405	100.0

First-choice faculty students selected in the Entrance Examination:

UNESCO Field of Study	Number	%
Agriculture	42	3.0
Law	54	3.8
Medical Science	151	10.8
Humanities	150	10.7
Fine Arts	44	3.1
Natural Science	17	1.2
Engineering	39	2.8
Education	578	41.1
Social Science	212	15.1
No response	118	8.4
Total	1,405	100.0

First-choice university students selected in the Entrance Examination:

University	Number	%
Chulalongkorn	494	35.1
Kasetsart	154	11.0
Silpakorn	50	3.5
Srinakharinwiroj	259	18.4
Chiang Mai	56	4.0
Khon Kaen	11	0.8
Prince of Songkla	8	0.6
Thammasat	175	12.5
Mahidol	59	4.2
No response	139	9.9
Total	1,405	100.0

Rank of Faculty of Education students selected in the Entrance Examination:

Rank	Number	%
First choice	336	31.8
Second choice	144	10.2
Third choice	110	7.8
Fourth choice	128	9.1
Fifth choice	194	13.8
Sixth choice	223	15.9
No response	160	11.4
Total	1,405	100.0

Definiteness of intention to become a teacher after graduation:

Intention	Number	%
Most definite	233	16.6
Very definite	479	34.1
Definite	354	25.2
Not definite	119	8.5
Never intend	211	15.0
No response	9	0.6
Total	1,405	100.0

Whether students attended a teacher training college before studying in the university:

Teacher College	Number	%
Attended	351	25.0
Did not attend	1,050	74.7
No response	4	0.3
	1,405	100.0

M.S. 5 percentage on the final exam and GPA in the university:

Score	Percentage		GPA	
	Number	%	Number	%
High (70%+, 3.0-4.0)	691	49.2	241	17.2
Average (50-69%, 2.0-2.9)	576	41.0	1,067	75.9
Low (50%-, 0.0-1.9)	11	0.8	74	5.3
No response	127	9.0	23	1.6
Total	1,405	100.0	1,405	100.0

Types of primary and secondary schools students graduated from:

Type of School	Primary		Secondary	
	Number	%	Number	%
Government school	823	58.6	1,048	74.6
Private school	525	37.3	216	15.4
Demonstration school	35	2.5	44	3.1
Other types	14	1.0	64	4.6
No response	8	0.6	33	2.3
Total	1,405	100.0	1,405	100.0

Type of community (GPP) of student's birthplace, place of longest residence, primary school, and secondary school:

GPP (mill. baht)	Birth		Reside		Primary		Secondary	
	No.	%	No.	%	No.	%	No.	%
Low (2000-10,000)	538	38.2	460	32.8	483	34.4	347	24.7
Average (10,001-20,000)	278	19.7	274	19.5	283	20.0	219	15.6
High (20,001-78,000)	561	39.2	627	44.6	587	41.8	771	54.9
No response	28	1.9	44	3.1	52	3.7	68	4.8
Total	1,405	100.0	1,405	100.0	1,405	100.0	1,405	100.0

Region of birthplace, place of longest residence, and secondary school:

Region	Birth		Reside		Secondary	
	Number	%	Number	%	Number	%
Bangkok	497	35.4	541	38.5	723	51.5
Central	433	30.8	437	21.1	325	23.1
North	122	8.7	110	7.8	80	5.7
Northeast	188	13.4	164	11.7	127	9.0
South	159	11.3	143	10.2	94	6.7
No response	6	0.4	10	0.7	56	4.0
Total	1,405	100.0	1,405	100.0	1,405	100.0

Number of children in the family and birth order of student in the family:

Number of Children	Size		Order	
	Number	%	Number	%
Small (1-3)	321	22.8	832	59.2
Medium (4-6)	632	45.0	415	29.6
Large (7 and up)	442	31.5	141	10.0
No response	10	0.7	17	1.2
Total	1,405	100.0	1,405	100.0

Parents' ethnic group:

Ethnicity	Father		Mother	
	Number	%	Number	%
Thai	1,075	76.5	1,141	81.2
Chinese	320	22.8	255	18.2
Others	7	0.5	2	0.1
No response	3	0.2	7	0.5
Total	1,405	100.0	1,405	100.0

Parents' educational level:

Educational Level	Father		Mother	
	Number	%	Number	%
Primary (P.1-P.7)	717	51.0	972	69.2
Secondary (M1-M5)	314	22.4	188	13.4
Higher education	295	21.0	165	11.7
No response	79	5.6	80	5.7
Total	1,405	100.0	1,405	100.0

Parents' occupation:

Occupation	Father		Mother	
	Number	%	Number	%
Death	216	15.4	76	5.4
No occupation	58	4.1	450	32.0
Government employee	263	18.7	88	6.3
Business or industry	110	7.8	59	2.8
Private business	360	25.6	318	22.6
Teacher	86	6.1	90	6.4
Farmer	213	15.2	236	16.8
Others	95	6.8	103	7.3
No response	4	0.3	5	0.4
Total	1,405	100.0	1,405	100.0

Family income (baht per month):

Income (Baht)	Number	%
Low (none-1,000)	215	15.3
Average (1,001-5,000)	704	50.1
High (5,001 and higher)	440	31.3
No response	46	3.3
Total	1,405	100.0

APPENDIX C

THAI AND ENGLISH VERSIONS OF THE QUESTIONNAIRE

APPENDIX C

แบบวัดทัศนคติต่อวิชาชีพครู

คำชี้แจง แบบวัดทัศนคติต่อวิชาชีพครูนี้ใช้ในการวิจัยสำหรับวิทยานิพนธ์ระดับ
ปริญญาเอก การรายงานผลการวิจัยจะรายงานในลักษณะรวม ๆ
เท่านั้น นิสิตนักศึกษาจึงไม่ต้อง เขียนชื่อหรือ เลขที่ นิสิต
นักศึกษา ดังนั้น จึงขอให้ท่านตอบหรือกรอกข้อความตามความ
เป็นจริงมากที่สุด เพื่อให้ผลการวิจัยเชื่อถือได้และ เกิดประโยชน์
แก่ส่วนรวม

โปรดตอบคำถามทุกข้อ

(โปรดพลิก)

ภาคที่ ๑ : จงพิจารณาข้อความต่อไปนี้แล้วตัดสินใจว่าลักษณะที่กล่าวถึงในแต่ละข้อความ เป็นลักษณะ
ที่ดีหรือไม่ดีเพียงใด โดยขีดเครื่องหมาย ✓ ลงในช่องที่ตรงกับความเห็นของท่าน

ข้อที่	ข้อความ	ดีมาก	ดี	ไม่ดี	ไม่ดีเลย
๑	การทำงานที่มีเกียรติเป็นสิ่งที่				
๒	การทำงานที่มีความสำคัญต่อประเทศชาติเป็นสิ่งที่				
๓	การทำให้มีอิทธิพลต่อเด็กโดยตรงเป็นสิ่งที่				
๔	ความไม่คอยก้าวหน้าในอาชีพเป็นสิ่งที่				
๕	การที่ต้องรับภาระหนักเป็นสิ่งที่				
๖	การได้รับเงินเดือนน้อยเป็นสิ่งที่				
๗	การทำงานที่ไม่มีโอกาสคดโกงเป็นสิ่งที่				
๘	การทำงานที่สนุกน่าตื่นเต้นเป็นสิ่งที่				
๙	ความจำเจน่าเบื่อเป็นสิ่งที่				
๑๐	การทำงานที่ต้องอาศัยความรู้ความสามารถเป็นสิ่งที่				
๑๑	การที่ต้องมีใจรักในอาชีพเป็นสิ่งที่				
๑๒	การรู้จักขยันเป็นสิ่งที่				
๑๓	การที่ต้องแสวงหาความรู้ใหม่อยู่เสมอเป็นสิ่งที่				
๑๔	การทำงานที่ต้องใช้จิตวิทยาเป็นสิ่งที่				
๑๕	การที่ต้องทำตัวให้มีมนุษยสัมพันธ์ดีเป็นสิ่งที่				
๑๖	การที่ต้องปรับตัวให้ได้เป็นสิ่งที่				
๑๗	การที่ต้องอดทนเป็นสิ่งที่				
๑๘	การทำงานที่ต้องรับผิดชอบสูงเป็นสิ่งที่				
๑๙	การที่ต้องทำตัวให้มีใจคอหนักแน่นเป็นสิ่งที่				
๒๐	การทำงานที่ต้องเสียสละเป็นสิ่งที่				
๒๑	การวางตัวเป็นแบบอย่างที่ดีแก่เด็กและผู้อื่นเป็นสิ่งที่				
๒๒	การแต่งงานมีครอบครัวเป็นสิ่งที่				

ภาคที่ ๒ : โปรดอ่านข้อความแล้วพิจารณาว่าในแต่ละข้อความนั้นมีความเป็นไปได้หรือไม่ได้มากนัก
เพียงใดแล้วขีดเครื่องหมาย ✓ ลงในช่องที่ตรงกับความเห็นของท่าน

ข้อที่	ข้อความ	เป็นไปได้ มากที่สุด	เป็นไปได้	เป็นไปได้ ไม่ได้	เป็นไปได้ ได้เลย
๑	ในการเลือกประกอบอาชีพในอนาคต ข้าพเจ้า คาดว่าจะปฏิบัติตามความปรารถนาของ <u>บิดา</u>				
๒	ในการเลือกประกอบอาชีพในอนาคต ข้าพเจ้า คาดว่าจะปฏิบัติตามความปรารถนาของ <u>มารดา</u>				
๓	ในการเลือกประกอบอาชีพในอนาคต ข้าพเจ้า คาดว่าจะปฏิบัติตามความปรารถนาของ <u>ญาติ</u>				
๔	ในการเลือกประกอบอาชีพในอนาคต ข้าพเจ้าคาดว่าจะ จะปฏิบัติตามความปรารถนาของ <u>อาจารย์</u>				
๕	ในการเลือกประกอบอาชีพในอนาคต ข้าพเจ้าคาดว่าจะ จะปฏิบัติตามความปรารถนา ของ <u>เพื่อน</u>				

ภาคที่ ๓ : โปรดอ่านข้อความแล้วพิจารณาว่าท่านเห็นด้วยกับข้อความนั้น ๆ เพียงใด
แล้วขีดเครื่องหมาย / ลงในช่องที่ตรงกับความเห็นของท่าน

ข้อที่	ข้อความ	เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่ เห็นด้วย	ไม่เห็นด้วย อย่างยิ่ง
๑	<u>บิดา</u> ของข้าพเจ้าเห็นว่าในอนาคตข้าพเจ้า ควรประกอบอาชีพครู.....				
๒	<u>มารดา</u> ของข้าพเจ้าเห็นว่าในอนาคตข้าพเจ้า ควรประกอบอาชีพครู.....				
๓	<u>ญาติ</u> ของข้าพเจ้าเห็นว่าในอนาคตข้าพเจ้า ควรประกอบอาชีพครู.....				
๔	<u>อาจารย์</u> ของข้าพเจ้าเห็นว่าในอนาคตข้าพเจ้า ควรประกอบอาชีพครู.....				
๕	<u>เพื่อน</u> ของข้าพเจ้าคิดว่าในอนาคตข้าพเจ้าควร จะประกอบอาชีพครู.....				

ภาคที่ ๔ : ต่อไปนี้เป็นข้อความที่แสดงความเชื่อบางประการเกี่ยวกับอาชีพครู โปรดอ่านข้อความแต่ละข้อความแล้วตัดสินใจว่าท่านเห็นด้วยกับข้อความนั้น ๆ หรือไม่ เพียงใด โดยขีด / ลงในช่องที่ตรงกับความเห็นของท่าน

ข้อที่	ข้อความ	เห็นด้วย อย่างยิ่ง	เห็นด้วย	ไม่เห็น ด้วย	ไม่เห็นด้วย อย่างยิ่ง
๑	อาชีพครูเป็นอาชีพที่มีเกียรติ.....				
๒	อาชีพครูเป็นอาชีพที่มีความสำคัญต่อประเทศชาติ.....				
๓	อาชีพครูเป็นอาชีพที่มีอิทธิพลต่อเด็กโดยตรง.....				
๔	อาชีพครูเป็นอาชีพที่ไม่ค่อยก้าวหน้า.....				
๕	อาชีพครูเป็นอาชีพที่มีภาระหนัก.....				
๖	อาชีพครูเป็นอาชีพที่ได้รับเงินเดือนน้อย.....				
๗	อาชีพครูเป็นอาชีพที่ไม่มีโอกาสคดโกง.....				
๘	อาชีพครูเป็นอาชีพที่สนุกน่าตื่นเต้น.....				
๙	อาชีพครูเป็นอาชีพที่น่าเบื่อหน่ายจำเจ.....				
๑๐	อาชีพครูเป็นอาชีพที่ต้องอาศัยความรู้ ความสามารถมาก.....				
๑๑	คนที่จะเป็นครูที่ดีได้ต้องมีใจรักอาชีพนี้.....				
๑๒	โดยทั่วไปครูมักจริงจังขยัน.....				
๑๓	ครูจะต้องเป็นผู้ที่สนใจหาความรู้ใหม่อยู่เสมอ.....				
๑๔	อาชีพครูเป็นอาชีพที่ต้องใช้จิตวิทยา.....				
๑๕	ครูต้องเป็นผู้ที่มีมนุษยสัมพันธ์ดี.....				
๑๖	ครูต้องมีความสามารถในการปรับตัวเก่ง.....				
๑๗	อาชีพครูเป็นอาชีพที่ต้องอดทนมาก.....				
๑๘	อาชีพครูเป็นอาชีพที่ต้องรับผิดชอบสูง.....				
๑๙	ครูต้องเป็นผู้ที่มีใจคอหนักแน่น.....				
๒๐	อาชีพครูเป็นอาชีพที่ต้องเสียสละ.....				
๒๑	ครูต้องวางตัวเป็นแบบอย่างที่ดีแก่เด็กและผู้อื่น.....				
๒๒	ครูมักจะไม่ค่อยได้แต่งงานมีครอบครัว.....				

ภาคที่ ๕ : โปรดตอบหรือกรอกข้อความโดยเขียน ✓ ลงในช่อง _____ หรือเติมข้อความ
ให้สมบูรณ์ตามความเป็นจริงของท่าน

๑. เพศ ๑ _____ ชาย
๒ _____ หญิง

๒. อายุ _____ ปี _____ เดือน

๓. ข้าพเจ้ากำลังศึกษาอยู่ในมหาวิทยาลัย

- ๑ _____ จุฬาลงกรณ์
๒ _____ เกษตรศาสตร์
๓ _____ ศรีนครินทรวิโรฒ
๔ _____ ศิลปากร

๔. ข้าพเจ้าเป็นนิสิตนักศึกษาในระดับชั้นปีที่

- ๑ _____ ๑
๒ _____ ๒
๓ _____ ๓
๔ _____ ๔

๕. โปรแกรมการศึกษาหรือสาขาวิชาของข้าพเจ้าคือ

- ๑ _____ การศึกษาปฐมวัย
๒ _____ ประถมศึกษา
๓ _____ มัธยมศึกษา
๔ _____ การศึกษารูปนัย
๕ _____ พละศึกษา
๖ _____ ศึกษา-เกษตร
๗ _____ ศึกษา-คหกรรม
๘. _____ อื่น ๆ (ระบุ) _____

๖. ข้าพเจ้าเลือกคณะ _____
มหาวิทยาลัย _____ เป็น
อันดับแรกในการสอบ เข้ามหาวิทยาลัย

๗. ข้าพเจ้าเลือกคณะครุศาสตร์ (ศึกษาศาสตร์) เป็นอันดับที่

- ๑ _____ ๑
๒ _____ ๒
๓ _____ ๓
๔ _____ ๔
๕ _____ ๕
๖ _____ ๖

๘. ข้าพเจ้างัดใจจะประกอบวิชาชีพครู

- ๑ _____ มากที่สุด
๒ _____ มาก
๓ _____ น้อย
๔ _____ น้อยมาก
๕ _____ ไม่ตั้งใจประกอบวิชาชีพครู

๙. ข้าพเจ้าเคยศึกษาริทยาลัยครูมาก่อน

- ๑ _____ เคย
๒ _____ ไม่เคย

๑๐. ข้าพเจ้าสอบไล่ชั้น ม.๕ หรือ ม.๖ ได้คะแนน

- ๑ _____ ๘๐ % ขึ้นไป
๒ _____ ๗๐ - ๗๙ %
๓ _____ ๖๐ - ๖๙ %
๔ _____ ๕๐ - ๕๙ %
๕ _____ ต่ำกว่า ๕๐ %

๑๑. คะแนนเฉลี่ยสะสม (G.P.A.) ของข้าพเจ้านับจนถึงภาคแรกของปีการศึกษานี้ คือ

- ๑ _____ ๓.๕ - ๔.๐
 ๒ _____ ๓.๐ - ๓.๕
 ๓ _____ ๒.๕ - ๒.๙
 ๔ _____ ๒.๐ - ๒.๔
 ๕ _____ ๐.๐ - ๑.๙

๑๒. ข้าพเจ้าศึกษาโรงเรียนประถมศึกษาประเภท...
 (กรุณาย้ายโรงเรียนตอบโรงเรียนที่อยู่มากที่สุด)

- ๑ _____ โรงเรียนประชาบาล
 ๒ _____ โรงเรียนเทศบาล
 ๓ _____ โรงเรียนสังกัดกรมสามัญศึกษา
 ๔ _____ โรงเรียนราษฎร์
 ๕ _____ โรงเรียนสาธิต
 ๖ _____ โรงเรียนประเภทอื่น (ระบุ)

๑๓. โรงเรียนประถมศึกษาของข้าพเจ้าอยู่ใน
 จังหวัด _____

๑๔. ข้าพเจ้าศึกษาโรงเรียนมัธยมศึกษาตอน
 ปลายประเภท.....

- ๑ _____ โรงเรียนรัฐบาล
 ๒ _____ โรงเรียนราษฎร์
 ๓ _____ โรงเรียนสาธิต
 ๔ _____ โรงเรียนประเภทอื่น (ระบุ)

๑๕. โรงเรียนมัธยมศึกษาตอนปลายของข้าพเจ้า
 อยู่ในจังหวัด _____

๑๖. โรงเรียนมัธยมศึกษาตอนปลายที่ข้าพเจ้าศึกษา
 อยู่ใน

- ๑ _____ กรุงเทพฯ
 ๒ _____ ภาคกลาง
 ๓ _____ ภาคเหนือ
 ๔ _____ ภาคตะวันออกเฉียงเหนือ
 ๕ _____ ภาคใต้

๑๗. ข้าพเจ้าเกิดที่จังหวัด _____

๑๘. ข้าพเจ้าเกิดที่

- ๑ _____ กรุงเทพฯ
 ๒ _____ ภาคกลาง
 ๓ _____ ภาคเหนือ
 ๔ _____ ภาคตะวันออกเฉียงเหนือ
 ๕ _____ ภาคใต้

๑๙. นับจนถึงปัจจุบันนี้ ข้าพเจ้าอาศัยอยู่ในจังหวัด
 _____ นานที่สุด

๒๐. นับจนถึงปัจจุบันนี้ ท้องถิ่นที่ข้าพเจ้าอาศัยอยู่มากที่สุด
 คือ

- ๑ _____ กรุงเทพฯ
 ๒ _____ ภาคกลาง
 ๓ _____ ภาคเหนือ
 ๔ _____ ภาคตะวันออกเฉียงเหนือ
 ๕ _____ ภาคใต้

๒๑. ข้าพเจ้ามีพี่น้องท้องเดียวกัน (รวมทั้งตัวข้าพเจ้า)
 _____ คน

๒๒. ข้าพเจ้าเป็นบุตรคนที่ _____

๒๓. ปิดาของข้าพเจ้ามีเชื้อชาติ

- ๑ _____ ไทย
- ๒ _____ จีน
- ๓ _____ อื่น ๆ (ระบุ) _____

๒๔. มารดาของข้าพเจ้ามีเชื้อชาติ

- ๑ _____ ไทย
- ๒ _____ จีน
- ๓ _____ อื่น ๆ (ระบุ) _____

๒๕. ปิดาของข้าพเจ้าสำเร็จการศึกษาระดับชั้น

- ๑ _____ ป.๑ - ป.๔
- ๒ _____ ป.๕ - ป.๗
- ๓ _____ ม.ศ.๑ - ม.ศ.๓
- ๔ _____ ม.ศ.๔ - ม.ศ.๕
- ๕ _____ อนุปริญญา หรือ เทียบเท่า
- ๖ _____ ปริญญาตรี
- ๗ _____ สูงกว่าปริญญาตรี

๒๖. มารดาของข้าพเจ้าสำเร็จการศึกษา
ระดับชั้น

- ๑ _____ ป.๑ - ป.๔
- ๒ _____ ป.๕ - ป.๗
- ๓ _____ ม.ศ.๑ - ม.ศ.๓
- ๔ _____ ม.ศ.๔ - ม.ศ.๕
- ๕ _____ อนุปริญญา หรือ เทียบเท่า
- ๖ _____ ปริญญาตรี
- ๗ _____ สูงกว่าปริญญาตรี

๒๗. อาชีพหลักของบิดาข้าพเจ้าคือ

- ๑ _____ ถึงแก่กรรม
- ๒ _____ ไม่ประกอบอาชีพ
- ๓ _____ รับราชการหรือรัฐวิสาหกิจ
- ๔ _____ พนักงาน, ลูกจ้างบริษัทเอกชน
- ๕ _____ เจ้าของ, ประกอบธุรกิจส่วนตัว
- ๖ _____ ครู, อาจารย์
- ๗ _____ เกษตรกร กลีกร ประมง
- ๘ _____ อื่น ๆ (ระบุ) _____

๒๘. อาชีพหลักของมารดาข้าพเจ้าคือ

- ๑ _____ ถึงแก่กรรม
- ๒ _____ ไม่ประกอบอาชีพหรือแม่บ้าน
- ๓ _____ รับราชการหรือรัฐวิสาหกิจ
- ๔ _____ พนักงาน, ลูกจ้างบริษัทเอกชน
- ๕ _____ เจ้าของ, ประกอบธุรกิจส่วนตัว
- ๖ _____ ครู, อาจารย์
- ๗ _____ เกษตรกร กลีกร ประมง
- ๘ _____ อื่น ๆ (ระบุ) _____

๒๙. ปิดา มารดาของข้าพเจ้ามีรายได้รวมกันประมาณ
_____ บาทต่อเดือน

- ๑ _____ ไม่มีรายได้
- ๒ _____ ต่ำกว่า ๕๐๐
- ๓ _____ ๕๐๐ - ๑,๐๐๐
- ๔ _____ ๑,๐๐๑ - ๒,๐๐๐
- ๕ _____ ๒,๐๐๑ - ๓,๐๐๐
- ๖ _____ ๓,๐๐๑ - ๔,๐๐๐
- ๗ _____ ๔,๐๐๑ - ๗,๐๐๐
- ๘ _____ มากกว่า ๗,๐๐๐

ขอขอบคุณทุกท่านที่ให้ความร่วมมือ

ATTITUDE TOWARD THE TEACHING PROFESSION SCALE

The Attitude Toward the Teaching Profession Scale is used as the research instrument for a doctoral dissertation. To insure your anonymity, you are not required to write your name or student number.

Please answer every statement according to the truth and what you actually feel or believe about the teaching profession.

PLEASE RESPOND TO EVERY STATEMENT.

Part 1. The following are characteristics related to a profession. Rate each statement by completing it with ✓ in the appropriate column.

Professions that . . . are:	Very Desir- able	Desir- able	Undesir- able	Very Undesir- able
1. give social status and prestige				
2. are important to the country				
3. have a direct influence on children				
4. provide slow professional progress				
5. are hard work				
6. pay low salaries				
7. provide no opportunity for corruption				
8. are enjoyable and exciting				
9. are routine				
10. require the use of intellectual abilities				
11. require love of work as such				
12. make you a fussy and negative person				
13. allow an individual to acquire new skills and knowledge				
14. use psychology in the work				
15. emphasize good human relations				
16. require ability to adapt to changing situations				
17. require much patience				
18. involve heavy responsibilities				
19. require you to be a firm person				
20. require some sacrifice				
21. require you to be a good model for children and others				
22. provide an opportunity for marriage				

Part 2. Read the following statements to see if each statement has a possibility of being true. Write ✓ in the appropriate column.

	Most Likely	Likely	May Be Likely	Not Likely
1. In choosing my future profession, I would follow my father's advice.				
2. In choosing my future profession, I would follow my mother's advice.				
3. In choosing my future profession, I would follow other relatives' advice.				
4. In choosing my future profession, I would follow my teacher's advice.				
5. In choosing my future profession, I would follow my friend's advice.				

Part 3. Read the following statements. Rate the degree to which each statement can be true. Write ✓ in the appropriate column.

	Strongly Agree	Agree	Dis- agree	Strongly Disagree
1. My father thinks that in the future, I should be a teacher.				
2. My mother thinks that in the future, I should be a teacher.				
3. My relative thinks that in the future, I should be a teacher.				
4. My teacher thinks that in the future, I should be a teacher.				
5. My friend thinks that in the future, I should be a teacher.				

Part 4. The following are statements about the teaching profession. You are asked if you agree with the statements. For each statement, write ✓ in the appropriate column.

	Strongly Agree	Agree	Mildly Dis- agree	Strongly Disagree
1. Teaching is a prestigious profession.				
2. The teaching profession is important to the country.				
3. Teachers have a direct influence on children.				
4. The teaching profession provides slow professional progress.				
5. Teaching is hard work.				
6. Teachers earn a low salary.				
7. The teaching profession provides no opportunity for corruption.				
8. Teaching is an enjoyable and exciting profession.				
9. The teaching profession is routine work.				
10. The teaching profession requires intellectual abilities.				
11. Teachers love the teaching profession.				
12. Teachers are fussy and negative persons.				
13. Teachers must acquire new skills and knowledge.				
14. Teachers use psychology in their profession.				
15. Teachers have good human relations.				
16. The teaching profession requires ability to adapt to changing situations.				
17. The teaching profession takes much patience.				
18. The teaching profession involves heavy responsibilities.				
19. Teachers are firm persons.				
20. Teachers sacrifice themselves for the teaching profession.				
21. Teachers are good models for children and others.				
22. Teachers rarely get married.				

Part 5. Please read the following statements. Write ✓ in the appropriate place or complete the statement.

1. Sex: ☐ 1 Male ☐ 2 Female
2. Age: years old.
3. University attended:

<input type="checkbox"/> 1 Chulalongkorn	<input type="checkbox"/> 3 Srinakharinwiroj
<input type="checkbox"/> 2 Kasetsart	<input type="checkbox"/> 4 Silpakorn
4. Status of student (class level):

<input type="checkbox"/> 1 Freshman	<input type="checkbox"/> 3 Junior
<input type="checkbox"/> 2 Sophomore	<input type="checkbox"/> 4 Senior
5. Academic program:

<input type="checkbox"/> 1 Early Childhood Education
<input type="checkbox"/> 2 Elementary Education
<input type="checkbox"/> 3 Secondary Education
<input type="checkbox"/> 4 Nonformal Education
<input type="checkbox"/> 5 Physical Education
<input type="checkbox"/> 6 Agricultural Education
<input type="checkbox"/> 7 Home Economics Education
<input type="checkbox"/> 8 Art Education
<input type="checkbox"/> 9 Others (Specify) <input type="text"/>
6. First-choice faculty and university selected in the Entrance Exam:

Faculty: <input type="text"/>
University: <input type="text"/>
7. Rank of the Faculty of Education selected in the Entrance Exam:

<input type="checkbox"/> 1 First	<input type="checkbox"/> 4 Fourth
<input type="checkbox"/> 2 Second	<input type="checkbox"/> 5 Fifth
<input type="checkbox"/> 3 Third	<input type="checkbox"/> 6 Sixth
8. Definiteness of the intention to become a teacher:

<input type="checkbox"/> 1 Most definite	<input type="checkbox"/> 4 Not definite
<input type="checkbox"/> 2 Very definite	<input type="checkbox"/> 5 Never intend
<input type="checkbox"/> 3 Definite	
9. Attended a teacher training college:

<input type="checkbox"/> 1 Yes	<input type="checkbox"/> 2 No
--------------------------------	-------------------------------
10. Percent of the last year in secondary school (M.S.5 or M.6):

<input type="checkbox"/> 1 80% and above	<input type="checkbox"/> 4 50-59%
<input type="checkbox"/> 2 70-79%	<input type="checkbox"/> 5 Below 50%
<input type="checkbox"/> 3 60-69%	

11. Grade point average (GPA) in the university:

- | | |
|------------------------------------|------------------------------------|
| <input type="checkbox"/> 1 3.5-4.0 | <input type="checkbox"/> 4 2.0-2.4 |
| <input type="checkbox"/> 2 3.0-3.4 | <input type="checkbox"/> 5 0.0-1.9 |
| <input type="checkbox"/> 3 2.5-2.9 | |

12. Type of last primary school attended:

- | |
|----------------------------------------------------------------------------|
| <input type="checkbox"/> 1 Local administration primary school |
| <input type="checkbox"/> 2 Municipal primary school |
| <input type="checkbox"/> 3 Government school (under Ministry of Education) |
| <input type="checkbox"/> 4 Private school |
| <input type="checkbox"/> 5 Demonstration school |
| <input type="checkbox"/> 6 Others (Specify) _____ |

13. Primary school attended in community: _____

14. Type of upper secondary school attended:

- | |
|---------------------------------------------------|
| <input type="checkbox"/> 1 Government school |
| <input type="checkbox"/> 2 Private school |
| <input type="checkbox"/> 3 Demonstration school |
| <input type="checkbox"/> 4 Others (Specify) _____ |

15. Upper secondary school attended located in community: _____

16. Location of upper secondary school attended:

- | | |
|--------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> 1 Bangkok | <input type="checkbox"/> 4 Northeastern region |
| <input type="checkbox"/> 2 Central region | <input type="checkbox"/> 5 Southern region |
| <input type="checkbox"/> 3 Northern region | |

17. Birthplace (community): _____

18. Birthplace (region):

- | | |
|--------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> 1 Bangkok | <input type="checkbox"/> 4 Northeastern region |
| <input type="checkbox"/> 2 Central region | <input type="checkbox"/> 5 Southern region |
| <input type="checkbox"/> 3 Northern region | |

19. Place of longest residence (until now) in community: _____

20. Place of longest residence (until now):

- | | |
|--------------------------------------------|------------------------------------------------|
| <input type="checkbox"/> 1 Bangkok | <input type="checkbox"/> 4 Northeastern region |
| <input type="checkbox"/> 2 Central region | <input type="checkbox"/> 5 Southern region |
| <input type="checkbox"/> 3 Northern region | |

21. Family size: number of children in family, including myself: _____

22. Birth order: I was born as the ____ child in the family.

23. Father's ethnicity:

- ☐ 1 Thai
☐ 2 Chinese
☐ 3 Others (Specify) _____

24. Mother's ethnicity:

- ☐ 1 Thai
☐ 2 Chinese
☐ 3 Others (Specify) _____

25. Father's education:

- | | |
|--------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> 1 Pratom 1-4 | <input type="checkbox"/> 5 Diploma or equivalent |
| <input type="checkbox"/> 2 Pratom 5-7 | <input type="checkbox"/> 6 Bachelor's degree |
| <input type="checkbox"/> 3 Matayom 1-3 | <input type="checkbox"/> 7 Higher than bachelor's degree |
| <input type="checkbox"/> 4 Matayom 4-5 or equiv. | |

26. Mother's education:

- | | |
|--------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> 1 Pratom 1-4 | <input type="checkbox"/> 5 Diploma or equivalent |
| <input type="checkbox"/> 2 Pratom 5-7 | <input type="checkbox"/> 6 Bachelor's degree |
| <input type="checkbox"/> 3 Matayom 1-3 | <input type="checkbox"/> 7 Higher than bachelor's degree |
| <input type="checkbox"/> 4 Matayom 4-5 or equiv. | |

27. Father's occupation:

- ☐ 1 Death
☐ 2 No occupation
☐ 3 Government employee
☐ 4 Business or industry
☐ 5 Private business
☐ 6 Teacher
☐ 7 Farmer
☐ 8 Others (Specify) _____

28. Mother's occupation:

- ☐ 1 Death
☐ 2 No occupation or housewife
☐ 3 Government employee
☐ 4 Business or industry
☐ 5 Private business
☐ 6 Teacher
☐ 7 Farmer
☐ 8 Others (Specify) _____

29. Family income (baht per month):

- _____ 1 No income
- _____ 2 Below 500
- _____ 3 500-1,000
- _____ 4 1,001-2,000
- _____ 5 2,001-3,000
- _____ 6 3,001-5,000
- _____ 7 5,001-7,000
- _____ 8 More than 7,000

THANK YOU FOR YOUR COOPERATION!

APPENDIX D

MULTIPLE CLASSIFICATION ANALYSIS TABLES

APPENDIX D

Analysis of Variance for Multiple Classification Analysis

Factors	df1	df2	F	p
1. Personal characteristics: sex, age, birth order	7	1371	1.517	0.157
2. Socioeconomic background: family size, family income, parents' occupation	24	1320	0.881	0.629
3. Socioeconomic background: parents' education, parents' ethnicity	16	1267	0.962	0.497
4. Socioeconomic background: type of community (GPP) and region of birthplace and residence	12	1317	1.118	0.341
5. Socioeconomic background: type of community (GPP) of primary school, secondary school, birthplace, and residence	8	1243	1.313	0.233
6. Educational background: university attended, class level, academic program, M.S.5 percent, GPA	22	1186	2.067	0.003*
7. Educational background: type and location of primary and secondary school	16	1257	1.085	0.364
8. Educational background: primary school, secondary school, teacher college, university	12	1352	2.058	0.017*
9. Selected factors: rank of Faculty of Education, intention to become a teacher, whether attended a teacher training college	10	1231	10.599	0.000*
10. First-choice faculty, first- choice university selected in the Entrance Examination, and subjective norms	17	1232	2.236	0.003*
11. Subjective norms: father, mother, relative, teacher, and/or friend	5	1398	4.639	0.000*

*p < .05.

Multiple Classification Analysis:
The Impact of Personal Characteristics of the Education Students
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Sex					
Male	565	-0.25		-1.02	
Female	814	0.18		0.71	
			0.01		0.03
Age					
Below 17	25	-6.19		-5.99	
18-20	562	-1.70		-1.97	
21-23	467	-0.13		0.06	
Above 24	325	3.60		3.77	
			0.07		0.07
Order of birth					
1-3	827	0.79		0.76	
4-6	412	-2.25		-2.16	
7-9	116	0.46		0.36	
10+	24	9.11		9.13	
			0.05		0.05
Multiple R Squared					0.008
Multiple R					0.088

Grand mean = 233.47

Multiple Classification Analysis:
The Impact of Socioeconomic Background of the Education Students
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Family size					
1-3	313	-0.02		0.06	
4-6	613	-0.05		0.08	
7-9	326	-0.85		-1.04	
Above 10	93	3.36		2.89	
			0.03		0.03
Family income					
None	102	1.71		1.44	
Below 500	31	11.44		12.83	
500-1,000	80	5.51		6.91	
1,001-2,000	119	-1.58		-0.83	
2,001-3,000	252	-0.98		-0.44	
3,001-5,000	323	-2.64		-2.74	
5,001-7,000	201	2.25		1.90	
Above 7,000	237	-0.56		-1.63	
			0.09		0.09
Father's occupation					
Death	198	1.97		0.93	
No job	54	1.92		1.97	
Gov't employee	260	-0.23		-0.44	
Business	107	3.02		3.73	
Private ind.	348	-1.01		0.76	
Teacher	83	1.52		3.03	
Farmer	206	-1.41		-4.33	
Others	89	-2.71		-2.29	
			0.05		0.07
Mother's occupation					
Death	65	-0.91		-2.25	
No job/housewife	434	-0.21		-0.36	
Gov't employee	86	6.55		7.39	
Business	38	3.31		2.33	
Private ind.	304	-1.98		-1.93	
Teacher	88	-2.32		-3.04	
Farmer	230	1.11		1.47	
Others	100	0.12		0.94	
			0.06		0.07
Multiple R Squared					0.016
Multiple R					0.126

Grand mean = 233.85

Multiple Classification Analysis:
The Impact of Parents' Education and Parents' Ethnicity
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Father's education					
P1-P4	561	1.54		1.19	
P5-P7	126	-1.05		-1.59	
M1-M3	221	-1.27		-2.03	
M4-M5	86	-5.11		-4.82	
Diploma	119	0.06		0.89	
Bachelor's	135	1.84		3.96	
Master's or Ph.D.	36	-7.37		-6.72	
			0.07		0.07
Mother's education					
P1-P4	794	0.85		0.65	
P5-P7	144	0.72		2.13	
M1-M3	134	-0.74		-0.22	
M4-M5	51	-4.87		-3.63	
Diploma	92	-2.54		-4.24	
Bachelor's	52	-3.50		-5.46	
Master's or Ph.D.	17	-0.78		4.02	
			0.05		0.06
Father's ethnicity					
Thai	1022	0.52		0.26	
Chinese	256	-1.48		-0.53	
Others	6	-25.37		-21.25	
			0.06		0.05
Mother's ethnicity					
Thai	1076	0.57		0.56	
Chinese	207	-2.75		-2.81	
Others	1	-45.54		-24.25	
			0.05		0.04
Multiple R Squared					0.012
Multiple R					0.110

Grand mean = 233.54

Multiple Classification Analysis:
The Impact of Birthplace and Place of Longest Residence
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Birthplace (GPP)					
Low	518	2.37		1.74	
Average	265	1.94		2.96	
High	547	-3.19		-3.08	
			0.08		0.08
Birthplace (region)					
Bangkok	476	-3.39		1.07	
Central	408	1.02		-0.26	
North	115	2.34		5.84	
Northeast	175	2.70		-5.17	
South	154	3.01		-1.14	
			0.08		0.08
Place of longest residence (GPP)					
Low	449	2.68		-0.70	
Average	264	1.46		-2.16	
High	617	-2.57		1.43	
			0.07		0.04
Place of longest residence (region)					
Bangkok	518	-3.35		-3.19	
Central	416	1.09		0.89	
North	103	0.83		-5.53	
Northeast	153	4.61		8.40	
South	140	3.53		4.06	
			0.09		0.12
Multiple R Squared					0.010
Multiple R					0.100

Grand mean = 233.50

Note: GPP = Gross Provincial Product
 Low = 2,000-10,000 million baht
 Average = 10,001-20,000 million baht
 High = 20,001-78,000 million baht

Multiple Classification Analysis:
The Impact of Type of Community (GPP)
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Location of elementary school					
Low	436	2.24		3.04	
Average	255	3.24		4.99	
High	561	-3.21		-4.63	
			0.09		0.13
Location of secondary school					
Low	308	2.38		0.87	
Average	206	3.17		1.29	
High	738	-1.88		-0.72	
			0.07		0.03
Location of birthplace					
Low	469	1.82		0.48	
Average	249	2.42		-0.68	
High	534	-2.73		-0.10	
			0.07		0.01
Location of place of longest residence					
Low	403	1.92		-2.04	
Average	247	2.49		-2.18	
High	602	-2.31		2.26	
			0.07		0.06
Multiple R Squared					0.008
Multiple R					0.092

Grand mean = 233.05

Note: Type of community = GPP (million baht)
 Low = 2,001-10,000 million baht
 Average = 10,001-20,000 million baht
 High = 20,001-78,000 million baht

Multiple Classification Analysis:
The Impact of Educational Background of Education Students
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
University attended					
Chulalongkorn	471	-3.03		-3.29	
Kasetsart	269	-1.11		-2.68	
Srinakharinwiroj	342	5.83		7.06	
Silpakorn	127	-2.10		-1.14	
			0.11		0.13
Class level					
Freshman	259	0.88		3.07	
Sophomore	300	-4.17		-2.58	
Junior	321	2.41		0.83	
Senior	329	0.75		-0.87	
			0.07		0.06
Academic program					
Early Childhood Ed.	7	-10.07		-13.05	
Elementary Ed.	219	4.78		0.10	
Secondary Ed.	470	-1.73		-0.97	
Nonformal Ed.	76	1.33		2.46	
Physical Ed.	260	-2.15		-2.18	
Agricultural Ed.	101	-0.19		3.76	
Home Economics Ed.	25	16.12		20.44	
Art Education	20	6.71		9.35	
Others	31	-7.29		-5.63	
			0.11		0.11
M.S. 5 percent (%)					
Above 80	134	2.42		2.19	
70-79	517	1.46		0.79	
60-69	392	-1.54		-1.02	
50-59	156	-2.87		-1.62	
Below 50	10	-2.74		-5.10	
			0.05		0.04
Grade point average					
3.5-4.0	29	-1.44		0.67	
3.0-3.4	191	4.48		5.66	
2.5-2.9	530	1.43		1.03	
2.0-2.4	397	-3.45		-3.47	
0.0-1.9	62	-3.27		-4.34	
			0.09		0.09
Multiple R Squared					0.037
Multiple R					0.192

Grand mean = 233.64

Multiple Classification Analysis:
The Impact of Primary and Secondary School
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Type of elem. school					
Local administration	310	2.62		1.08	
Municipal	117	1.28		1.10	
Under MOE	297	2.38		2.09	
Private	504	-3.52		-2.29	
Demonstration	35	6.33		5.35	
Other types	11	-10.64		-10.77	
			0.09		0.07
Type of sec. school					
Government	981	0.22		-0.02	
Private	200	-2.14		-0.96	
Demonstration	42	5.38		4.27	
Other types	51	-0.33		0.57	
			0.04		0.03
Location of elem. school					
Low (GPP)	443	2.27		1.78	
Average	260	2.95		2.51	
High	571	-3.10		-2.53	
			0.08		0.07
Location of sec. school					
Low (GPP)	314	2.47		1.08	
Average	207	2.47		-0.37	
High	753	-1.71		-0.35	
			0.06		0.02
Region secondary school located					
Bangkok	701	-1.61		0.23	
Central	300	1.75		0.30	
North	71	0.57		-2.46	
Northeast	114	1.42		-2.14	
South	88	4.57		1.90	
			0.06		0.03
Multiple R Squared					0.014
Multiple R					0.117

Grand mean = 233.10

Note: GPP = Gross Provincial Product
 Low = 2,000-10,000 million baht
 Average = 10,001-20,000 million baht
 High = 20,001-78,000 million baht

Multiple Classification Analysis:
The Impact of Educational Institutions on
Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Type of elem. school					
Local administration	360	2.77		0.91	
Municipal	119	1.39		1.34	
Under MOE	317	1.10		1.70	
Private	521	-3.22		-2.26	
Demonstration	35	6.15		5.28	
Other types	13	-3.74		-2.82	
			0.08		0.06
Type of sec. school					
Government	1044	-0.05		-0.06	
Private	213	-1.66		-0.75	
Demonstration	44	5.16		4.51	
Other types	64	2.76		0.33	
			0.04		0.03
Teacher training college					
Attended	323	5.52		1.07	
Did not attend	1042	-1.71		-0.33	
			0.09		0.02
University					
Chulalongkorn	494	-3.43		-2.95	
Kasetsart	297	-1.67		-1.65	
Srinakharinwiroj	440	5.47		4.69	
Silpakorn	134	-1.61		-0.88	
			0.11		0.10
Multiple R Squared					0.018
Multiple R					0.134

Grand mean = 233.28

**Multiple Classification Analysis:
The Impact of Selected Variables of Education Students
on Attitudes Toward the Teaching Profession**

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Rank of Faculty of Education					
1st	445	4.72		-0.67	
2nd	144	3.38		3.35	
3rd	110	-7.05		-6.61	
4th	128	-3.86		-2.09	
5th	192	-6.08		-1.18	
6th	223	-0.67		4.65	
			0.14		0.09
Intention to become a teacher					
Most definite	204	18.16		18.61	
Very definite	412	1.43		1.96	
Definite	330	-4.48		-4.63	
Not definite	112	-10.48		-10.62	
Never intend	184	-8.92		-10.26	
			0.27		0.28
Attended a teacher college					
Attended	257	6.53		0.05	
Did not attend	985	-1.70		-0.01	
			0.10		0.00
Multiple R Squared				0.079	
Multiple R				0.282	

Grand mean = 233.44

Multiple Classification Analysis:
The Impact of First-Choice Faculty and University
on Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Selected first-choice faculty					
Agriculture	42	-7.11		-7.14	
Law	54	1.70		3.55	
Medical Science	151	-3.89		-3.28	
Humanities	149	-0.42		1.46	
Fine Arts	36	-2.38		1.87	
Natural Science	17	2.73		3.57	
Engineering	30	-12.20		-9.94	
Education	560	4.22		2.21	
Social Science	211	-5.22		-3.24	
			0.13		0.09
Selected first-choice university					
Chulalongkorn	492	-2.30		-2.01	
Kasetsart	151	1.49		1.95	
Silpakorn	49	-3.49		-5.03	
Srinakharinwiroj	257	7.11		4.26	
Chiang Mai	56	2.97		5.00	
Kohn Kaen	10	-21.30		-16.73	
Prince of Songkla	8	-0.18		3.98	
Thammasat	171	-2.36		-1.41	
Mahidol	56	-5.32		-1.18	
			0.13		0.10
Subjective norms					
Low	690	-2.90		-2.25	
High	560	3.57		2.77	
			0.09		0.07
Multiple R Squared					0.030
Multiple R					0.173

Grand mean = 233.80

Multiple Classification Analysis:
The Impact of Referent Groups on
Attitudes Toward the Teaching Profession

Variable & Category	N	Unadjusted		Adjusted for Independents	
		Dev'n	Eta	Dev'n	Beta
Father					
Low	999	-2.10		-0.45	
High	405	5.18		1.10	
			0.10		0.02
Mother					
Low	965	-2.67		-2.24	
High	439	5.87		4.92	
			0.12		0.10
Relative					
Low	1280	-0.62		-0.31	
High	124	6.41		3.15	
			0.06		0.03
Teacher					
Low	1119	-0.79		-0.24	
High	285	3.09		0.95	
			0.05		0.01
Friend					
Low	1278	0.08		0.54	
High	126	-0.77		-5.50	
			0.01		0.05
Multiple R Squared					0.016
Multiple R					0.128

Grand mean = 233.52

The Institutions Involved in the Study

Chulalongkorn University

Location: Phya Thai Road in the Patoomwan District of Bangkok
 Size: 500 acres
 Founded: 1917 by the Royal Act of H.M. King Vajiravudh (Rama IV)
 Faculties: Science, Commerce and Accounting, Education, Architecture, Engineering, Arts, Political Science, Law, Communication Arts, Economics
 Enrollment: In academic year 1977, the university enrolled 11,942 students:
 Freshmen 3,007
 Sophomores 2,978
 Juniors 2,912
 Seniors 3,045

At the undergraduate degree level, the Faculty of Education offers programs in:

- Early Childhood Education
- Elementary Education
- Secondary Education
 - Teaching Mathematics at the secondary level
 - Teaching Chemistry at the secondary level
 - Teaching Biology at the secondary level
 - Teaching Business Education at the secondary level
 - Teaching Physical Science at the secondary level
 - Teaching Biological Science at the secondary level
 - Teaching General Science at the secondary level
 - Teaching Physics at the secondary level
 - Teaching Thai as a Foreign Language at the secondary level
 - Teaching German as a Foreign Language at the secondary level
 - Teaching English as a Foreign Language at the secondary level
 - Teaching Social Studies at the secondary level
- Nonformal Education
- Educational Psychology
- Music Education
- Physical Education
- Art Education
- School Health Education
- Audio-Visual Education

At the graduate degree level, the university offers courses in:

- Educational Measurement and Evaluation
- Mathematics Education
- Science Education
- Teaching Thai
- Teaching English
- Teaching Social Studies
- Educational Psychology and Guidance

- Supervision and Curriculum Development
- Administration
- Elementary Education
- Nursing Education
- Physical Education
- Educational Research
- Educational Statistics
- Audio-Visual Education

Kasetsart University

Location: The main campus is located in the district of Bangkaen in Bangkok. It has two branches in Pakkret and Kampaengsan.

Size: 560 acres

Founded: 1943 by the Kasetsart University Act of 1943

Enrollment: In the academic year 1977, the university enrolled 6,104 students:

Freshmen	1,710
Sophomores	1,488
Juniors	1,453
Seniors	1,453

Faculties: Agriculture, Fisheries, Forestry, Science and Arts, Engineering, Economics and Business Administration, Education, Social Science, Veterinary Science

At the undergraduate degree level, the Faculty of Education provides programs in Agricultural Education, Home Economics Education, and Physical Education. Teaching Mathematics, Teaching Science, Teaching English, Teaching Thai, and Agricultural Education are offered at the graduate degree level.

Freshman and sophomore students in the Faculty of Education study on the Bangkaen campus. Some junior and senior students study on the Kampaengsan campus.

Silpakorn University

Location: The main campus is located at Wang Ta-Pra, Na-Pralan Road, Bangkok. Its branch is in Nakorn Pathom.

Founded: 1943 by the Silpakorn University Act of 1943

Enrollment: In the academic year 1977, the university enrolled 1,767 students:

Freshmen	571
Sophomores	415
Juniors	407
Seniors	374

Faculties: Painting, Sculpture and Graphic Arts, Architecture, Decorative Arts, Archaeology, Arts, Education, Science

The university offers programs leading to a bachelor's degree in Education with areas of study in Teaching History, Teaching Thai, Teaching English, and Teaching Geography. Adult and Continuing Education are offered in the graduate school.

Srinakharinwirot University

Location: Formerly known as the College of Education or Prasarnmitr College. The university has the main campus located off Sukhumvit Road on Soi Prasarnmitr in the Prakanong District of Bangkok. Its seven branches are the Prasarnmitr campus, the Patoomwan campus, the Bangkaen campus, the Palasuksa College, the Bangsaen campus, the Mahasarakram campus, and the Songkla campus.

Founded: 1954 by the College of Education Act of 1954

Enrollment In the academic year 1977, the university enrolled 21,014 students:

Freshmen	1,456
Sophomores	1,390
Juniors	14,614*
Seniors	3,554

Faculties: Education, Humanities, Social Science, Science

At the Prasarnmitr campus, the following programs are offered in the undergraduate schools in the Faculty of Education:

- Teaching Home Economics
- Teaching Mathematics
- Teaching Chemistry
- Teaching Biology
- Teaching Music Education
- Teaching Business Education
- Teaching History
- Teaching Physics
- Teaching Geography
- Teaching Thai
- Teaching English
- Teaching Science
- Teaching Art Education
- Teaching Social Studies
- Educational Technology
- Elementary Education

The following programs are offered in the graduate school:

- Elementary Education
- Secondary Education
- Higher Education

*Includes graduates with diploma in education from teachers colleges who continue their studies in the university.

- Educational Administration
- Guidance
- Educational Measurement
- Educational Technology
- Library Science
- Teaching Thai
- Developmental Psychology
- Teaching English
- Teaching Geography
- Teaching History
- Teaching Chemistry
- Teaching Biology
- Teaching Physics
- Teaching Mathematics
- Physical Education
- Special Education for Hearing Impaired
- Developmental Education
- Research and Curriculum Development

APPENDIX E

RANK OF COMMUNITIES ACCORDING TO GROSS PROVINCIAL
PRODUCT (GPP) AT THE CURRENT MARKET PRICE IN 1978

APPENDIX E

<u>Code</u>	<u>Million baht</u>
1. Si Sa Ket	2,381
2. Surin	2,897
3. Roi Et	2,946
4. Naha Sarakham	3,376
5. Ubon Ratchathani	3,509
6. Chaiyaphum	3,628
7. Yasothon	3,631
8. Buriram	3,657
9. Loei	3,777
10. Nakhon Phanom	4,214
11. Kalasin	4,249
12. Nong Khai	4,250
13. Udon Thani	4,645
14. Chiang Rai	4,763
15. Sakon Nakhon	4,887
16. Nan	4,978
17. Khon Kaen	5,026
18. Nakhon Ratchasima	5,071
19. Phitsanulok	5,851
20. Kamphaeng Phet	5,856
21. Pattani	5,859
22. Phatthalung	5,937
23. Nakhon Sawan	5,979
24. Phichit	6,139
25. Phetchabun	6,149
26. Phrae	6,206
27. Uthai Thani	6,231
28. Sukhothai	6,284
29. Lamphun	6,309
30. Narathiwat	6,309
31. Prachin Buri	6,325
32. Nakhon Si Thammarat	6,697
33. Lampang	6,780
34. Ang Thong	7,217
35. Mae Hong Son	7,220
36. Samut Songkram	7,342
37. Krabi	7,380
38. Nakhon Nayok	7,561
39. Chumphon	7,831
40. Surat Thani	7,847
41. Satun	8,024
42. Uttaradit	8,087
43. Lop Buri	8,523
44. Chiang Mai	8,564
45. Chai Nat	8,654
46. Yala	8,791

<u>Code</u>	<u>Million baht</u>
47. Chachoengsao	9,189
48. Chanthaburi	9,774
49. Phra Nakhon Sri Ayatthaya	10,059
50. Trang	10,059
51. Prachuap Khiri Khan	10,210
52. Suphan Buri	10,600
53. Sing Buri	10,645
54. Ratchaburi	11,172
55. Tak	11,178
56. Trat	11,260
57. Nakhon Pathom	11,272
58. Songkhla	11,913
59. Phetchaburi	12,467
60. Nonthaburi	12,591
61. Rayong	12,650
62. Samut Sakhon	13,525
63. Saraburi	1,4716
64. Pathum Thani	19,202
65. Phangnga	20,750
66. Kanchanaburi	22,463
67. Chon Buri	23,160
68. Bangkok--Thon Buri	26,781
69. Ranong	31,567
70. Samut Prakan	61,761
71. Phuket	77,318

Source: Regional and Provincial Accounts Section, National Accounts Division, Office of the National Economic and Social Development Board (Bangkok: July 11, 1979).

SELECTED BIBLIOGRAPHY

SELECTED BIBLIOGRAPHY

Books

- Allport, G. W. "Attitudes." In A Handbook of Social Psychology. Edited by G. C. Murchinson. Massachusetts: Clark University Press, 1935.
- Ball, S., ed. Motivation in Education. New York: Academic Press, 1977.
- Borg, W. R., and Gall, M. D. Educational Research: An Introduction. New York: David McKay Company, Inc., 1971.
- Brembeck, C. S. Social Foundation of Education: Environmental Influence in Teaching and Learning. New York: John Wiley and Sons, Inc., 1966.
- Bryant, E. C. Statistical Analysis. 2nd ed. International Student Edition. New York: McGraw-Hill Book Company, 1966.
- Cronbach, L. J. Educational Psychology. New York: Harcourt, Brace and World, 1963.
- Fishbein, M., ed. Readings in Attitude Theory and Measurement. New York: John Wiley and Sons, 1967.
- Fishbein, M., and Ajzen, I. Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Massachusetts: Addison-Wesley, 1975.
- Gatesingha, V. Statistics for Research Studies. Bangkok: National Education Commission, 1979. (In Thai.)
- Guttman, L. "The Problem of Attitudes and Opinion Measurement." In Measurement and Prediction. Edited by S. A. Stauffer. Princeton: Princeton University Press, 1950.
- Haber, R. N., and Fried, A. H. An Introduction to Psychology. New York: Holt, Rinehart and Winston, Inc., 1975.
- Harp, W. L. Statistics. New York: Holt, Rinehart and Winston, Inc., 1963.
- Jahoda, M.; Deutsch, M.; and Cook, S. W. Research Methods in Social Relations. New York: Dryden Press, 1951.

- Kerlinger, F. N., and Pedhazur, E. J. Multiple Regression in Behavioral Research. New York: Holt, Rinehart and Winston, Inc., 1973.
- Ketudat, S.; Srisa-an, W.; and others. Systems of Higher Education: Thailand. New York: International Council for Education Development, 1978.
- Krech, D., and Crutchfield, R. S. Theory and Problems of Social Psychology. New York: McGraw-Hill Book Company, 1948.
- Lieberman, M. Education as a Profession. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1956.
- Mager, R. F. Developing Attitude Toward Learning. California: Lear Siegler, Inc., Fearon Publishers, 1968.
- Mehrens, W. A., and Lehmann, I. J. Measurement and Evaluation in Education and Psychology. 2nd ed. New York: Holt, Rinehart and Winston, Inc., 1975.
- Mendenhall, W.; Ott, L.; and Schaeffer, R. L. Elementary Survey Sampling. California: Duxbury Press, Wadsworth Publishing Company, Inc., 1971.
- Morgan, C. T., and King, R. A. Introduction to Psychology. New York: McGraw-Hill Book Company, 1966.
- Murphy, G.; Murphy, L. B.; and Newcomb, T. M. Experimental Social Psychology. New York: Harper, 1937.
- Newcomb, T. M. Social Psychology. New York: Dryden Press, 1950.
- Newcomb, T. M.; Turner, R. H.; and Converse, P. E. Social Psychology: The Study of Human Interaction. New York: Holt, Rinehart and Winston, Inc., 1965.
- Nie, N. H.; Hull, C. H.; Jenkins, J. G.; Steinbrenner, K.; and Bent, D. H. SPSS: Statistical Package for the Social Sciences. 2nd ed. New York: McGraw-Hill Book Company, 1975.
- Page, G. T., and Thomas, J. B., with Marshall, A. R. International Dictionary of Education. London: Nichols Publishing Company, 1977.
- Rokeach, M. "Attitudes." In International Encyclopedia of the Social Sciences, Vol. 1. Edited by D. L. Sills. New York: Macmillan, 1968.
- Rosenberg, J. L.; Havland, C. I.; McGurie, W. J.; Abelson, R. P.; and Brehns, J. W. Attitude Organization and Change. New Haven: Yale University Press, 1960.

- Sathorn, P. Principles of Education. Bangkok: P. Sampanpanich Publishing Company, 1977. (In Thai.)
- Sorenson, H. Psychology in Education. New York: McGraw-Hill Book Company, 1964.
- Srisopha, A. Elementary Statistics. Bangkok: Thai Watanapanich, 1977. (In Thai.)
- _____. Introduction to Research Study. Bangkok: Thai Watanapanich, 1977. (In Thai.)
- Sudprasert, K. Research Techniques. Bangkok: Thai Watanapanich, 1973. (In Thai.)
- Suwan, P. Attitude: Measurement, Attitude Change, and Behavior. Bangkok: Thai Watanapanich, 1977. (In Thai.)
- Vasinsarakorn, V. Education in Thailand. Bangkok: Mitr-Siam Publishing Company, 1963. (In Thai.)
- Walpole, R. E. Introduction to Statistics. 2nd ed. New York: Macmillan Publishing Company, Inc., 1974.
- Wilson, J. A. R.; Robech, M. C.; and Michael, W. B. Psychological Foundation of Learning and Teaching. New York: Harcourt, Brace, and World, 1963.

Pamphlets, Periodicals, and Journals

- Ajzen, I., and Fishbein, M. "Attitudes and Normative Beliefs as Factors Influencing Behavioral Intentions." Journal of Personality and Social Psychology 21 (1969): 1-9.
- Brim, B. J. "Attitude Change in Teacher Education Students." Journal of Educational Research 53 (August 1966): 441-45.
- Campbell, D. T. "The Indirect Assessment of Social Attitudes." Psychological Bulletin 47 (1950).
- Chiang Mai University, Faculty of Education. "A Study of the Reasons and Motivations for Choosing Faculty of Education and Attitudes Toward the Teaching Profession of Freshman Students in Academic Year 1977 in Chiang Mai University." Journal of Research Abstracts 4 (1978): 20. Bangkok: Research Registration Division, The National Research Council, 1978. (In Thai.)

- Davis, E. E. "Attitude Change: A Review and Bibliography of Selected Research." UNESCO: Reports and Papers in the Social Sciences 19 (1964).
- DeVries, D. L., and Ajzen, I. "The Relationship of Attitudes and Normative Beliefs to Cheating in College." Journal of Social Psychology 83 (1971): 199-207.
- Duijker, H. C. "Comparative Research in Social Science With Special Reference to Attitude Research." International Social Science Bulletin (UNESCO) 7,4 (1955).
- Hughes, H. H., and Robbins, R. "Measurement of the Attitudes of Teachers Toward Teaching as a Profession." Journal of Educational Research 60 (February 1967): 243-46.
- Jaccard, J. J., and Davidson, A. R. "Toward an Understanding of Family Planning Behaviors: An Initial Investigation." Journal of Applied Social Psychology 2 (1972): 228-35.
- Lipscomb, E. E. "A Study of the Attitudes of Student Teachers in Elementary Education." Journal of Educational Research 60 (December 1966): 159-63.
- Ministry of Education. "Department of Teacher Training: Its Work and Organization." Bangkok: 1973. (In Thai.)
- Mori, T. "Analysis of Factors Influencing Motivations for Becoming a Teacher." Journal of Educational Research 60 (December 1966): 159-63.
- National Education Commission. "Higher Education in Thailand." Bangkok: October 1977. (In Thai.)
- _____. "The Student Teacher Professional Training and Field Work Project." Bangkok: 1977. (In Thai.)
- Office of National Economic and Social Development Board, Regional and Provincial Accounts Section. "Preliminary Report on Gross Provincial Product, Per Capita GPP, 1974-1978." 11 July 1979.
- Office of University Affairs. "Report on the Joint Higher Education Entrance Examination of the Academic Year 1977."
- _____. "Educational Report on Institutions of Higher Education of Academic Year 1977."
- Pinkney, H. B. "Better Teaching: Key to Improving Urban Schools." NASSP Bulletin (February 1977): 27-32.

- Pitiyanuwath, S., and Srichan, N. "Construction of an Attitude Toward the Teaching Profession Scale." Bangkok: Research Department, Faculty of Education, Chulalongkorn University, 1979. (In Thai.)
- Rokeach, M. "Attitude Change and Behavior Change." Public Opinion Quarterly 30 (1966): 529-50.
- Salayacheevin, S. "A Study of Occupational Values and Attitudes of the Freshman Students in Khon Kaen University in the Academic Year 1975." Abstract of Research Related to Education. Bangkok: The National Education Commission, 1979. (In Thai.)
- Taddeo, I. S. "Do Teacher Attitudes Affect Learning?" NASSP Bulletin (February 1977): 7-13.
- Unruh, A. "Teachers and Classroom Discipline." NASSP Bulletin (February 1977): 84-87.

Dissertations and Unpublished Reports

- Assavachin, T. "Education Students' Attitudes Toward Study in the Faculty of Education." Bachelor's thesis, Chulalongkorn University, 1967. (In Thai.)
- Boonvanich, V. "A Survey of Opinions About the Teaching Profession of Students for the Certificate in Education in Educational Region V in Academic Year 1974." Bachelor's thesis, Chulalongkorn University, 1965. (In Thai.)
- Boonyanyaew, T. "A Comparative Study of Attitudes of Master's Degree Teachers in Guidance and Master's Degree Teachers in Other Fields Toward the Teaching Profession." Master's thesis, College of Education, Prasarnmitr, 1970. (In Thai.)
- Carlson, A. R. "The Relationships Between a Behavioral Intention: Attitude Toward the Behavior and Normative Beliefs About the Behavior." Ph.D. dissertation, University of Illinois at Urbana-Champaign, 1970.
- Chinchomb, S. "A Survey of the Opinions of Teacher Students Toward the Teaching Profession." Bachelor's thesis, Chulalongkorn University, 1966. (In Thai.)
- Chinsomboon, D.; Kesornsirichareon, W., and Kanchanavasee, S. "Measurement of Attitudes Toward the Teaching Profession of Education Students in the Faculty of Education, Chulalongkorn University." Unpublished research report, Chulalongkorn University, 1976. (In Thai.)

- Darroch, R. K. "Attitudinal Variables and Perceived Group Norms as Predictors of Behavioral Intentions." Ph.D. dissertation, University of Illinois at Urbana-Champaign, 1971.
- Department of Teacher Training, Ministry of Education. "Report on the Symposium in Education, 3-7 February 1975, at Lumpang, Bangkok." (In Thai.)
- _____. "Report of a Seminar in Teacher Education, 8-17 November 1978, Bangkok." (In Thai.)
- Department of Teacher Training and National Education Commission. "The New Approach of Teacher Training." Seminar, 20-22 April 1977, Chiangmai, Bangkok. (In Thai.)
- _____. "The Follow-Up Study of Teacher Training." Bangkok, 1976. (In Thai.)
- Grajanglikit, S. "A Comparative Study of the Attitudes Before and After Practice Teaching Toward the Student Teaching Programs of College of Education, Prasarn Mittr, Academic Year 1970." Master's thesis, College of Education, Prasarn Mittr, 1971. (In Thai.)
- Hornick, J. A. "Two Approaches to Individual Differences in Cooperative Behavior in an Expanded Prisoner's Dilemma Game." Master's-level paper, University of Illinois at Urbana-Champaign, 1970.
- Lasharojana, S. "Attitudes of the Fourth Year Students at the College of Education at Prasarnmitr, Patoomwan, and Bangsaen Toward the Teaching Profession and Courses in Education in the Year 1962." Master's thesis, College of Education, Prasarnmitr, 1963. (In Thai.)
- MeKhanaron, S. "Changing Attitudes Toward the Teaching Profession of Faculty of Education Students." Master's thesis, Chulalongkorn University, 1973. (In Thai.)
- Pitiyanuwat, S. "Relationships Among Attitudes, Beliefs, Achievement, Intentions and Achievement Behavior in Mathematics." Ph.D. dissertation, University of Minnesota, 1976.
- Pongchai, W. "Attitudes of Male Teachers Toward the Teaching Profession." Bachelor's thesis, Chulalongkorn University, 1967. (In Thai.)

- Rungsiyokrit, A. "A Comparative Study of Attitudes Toward the Teaching Profession of Student Teachers at the Level of Certificate of Education (Paw-Kaw-saw) and Certificate of Elementary Teacher Education (Paw Paw), Academic Year 1969." Master's thesis, College of Education, Prasarnmitr, 1970. (In Thai.)
- Taewtrakulwat, U. "Teacher Students' Attitudes Toward Drug Dependence and Their Subjective Norms." Master's thesis, Chulalongkorn University, 1979. (In Thai.)
- Thong-ngok, W. "The Relationship Between Attitudes Toward the Teaching Profession, Self-Discipline, and Achievement in Teaching and Learning of the Student Teachers in the College of Education, Pitsanulok." Master's thesis, College of Education, Prasarn Mittr, 1974. (In Thai.)
- Thongutai, U. "Attitudes Toward the Teaching Profession of Teachers With Different Backgrounds." Abstract of Research Related to Education. Bangkok: The National Education Commission, 1979. (In Thai.)
- Thongutai, U., and Poonyakanoke, P. "A Research Report on the Interviewing Process Based on the Data From the Measurement of the Teaching Attitude Inventory." Chulalongkorn University, 1977. (In Thai.)
- Timwong, N. "A Comparative Study of Attitudes of Teachers and Prospective Teachers Toward the Teaching Profession." Master's thesis, Chulalongkorn University, 1968. (In Thai.)
- Tittiranondha, N. "A Survey of Opinions About the Teaching Profession of Students for the Higher Certificate in Educational Region I in Academic Year 1964." Bachelor's thesis, Chulalongkorn University, 1965. (In Thai.)
- Vinokur, D. R. K. "Family Planning Decision: Attitudes, Beliefs, and Behavioral Intentions." Ph.D. dissertation, University of Michigan, 1975.

MICHIGAN STATE UNIVERSITY LIBRARIES



3 1293 03169 1219