

AN ABSTRACT OF THE STUDY OF

BULARAT SUVARNABRIKSHA SITTHIPHONG for the degree of DOCTOR OF EDUCATION

in EDUCATION presented on NOVEMBER 17, 1980

Title: A COMPARATIVE STUDY OF WORK VALUES BETWEEN SELECTED TENTH-GRADE

THAI GIRLS IN BANGKOK AND CHIANGMAI, THAILAND

Redacted for Privacy

Abstract Approved:

Carvel W. Wood

Purpose

This study was designed to determine and compare the work values held by tenth-grade Thai girls in Bangkok and Chiangmai, Thailand, in order to lay the groundwork for a more systematic approach to career counseling and curriculum planning in the Thai school system.

Procedures

D. E. Super's work values inventory (WVI) was selected as the research instrument and was translated into Thai for this study. A personal questionnaire was designed and developed by the investigator. During January and February 1980, the WVI and the personal questionnaire were administered to 381 selected tenth-grade Thai girls in Bangkok, and to 390 selected tenth-grade Thai girls in Chiangmai.

The demographic data was analyzed and one-way analysis of variance was used in testing null hypotheses in the items of the WVI. The F statistic and t-test, with a 0.05 level of significance, were used to examine differences among the mean scores and to determine the confidence intervals.

## Findings

The following findings were drawn from this study:

1. There were statistically significant differences in the work values identified as "management", "achievement", "altruism", and "intellectual stimulation" between the selected tenth-grade Thai girls in Bangkok and those in Chiangmai.
2. The comparative demographic data showed the following similarities in total sample of the selected tenth-grade Thai girls in Bangkok and Chiangmai: 97.41% were Buddhists, 86.25% were native Thai, and 75.10% were from families whose income was higher than the average per capita income in Thailand.
3. The range of estimated work value mean scores of all tenth-grade Thai girls in Chiangmai for the scale "security" had the highest variation, whereas the range of estimated work value mean scores of all tenth-grade Thai girls in Chiangmai for scale "independence" had the lowest variation, among the 15 scales in the WVI.

## Recommendations

1. A questionnaire designed to test work values of Thai students should be developed in Thai for Thai students. A questionnaire designed for American students which is translated from English into the Thai language may not adequately test the work values of Thai students.
2. A follow-up study to determine the influences of age, sex, family socioeconomic background, scholastic ability, race or ethnic background, and religion on work values among Thai students should be conducted.

3. The work values of each student should be considered by the high school counselors in order to better help the student plan future study and career possibilities.

4. An examination of differences in career development and career decision-making should be made between those students tested for work values and those students who are not tested.

5. A longitudinal study should be conducted to determine the stability of work values of students between elementary school and college.

6. Additional research should be developed to compare and determine work values of students in other parts of Thailand, including the South and Northeast.

7. Replication of this study with other grade levels of students should be conducted.

8. Further studies about the change which occurs among Thai women, such as the change in values, attitudes, lifestyle and employment status, should be done.

9. Additional investigation also should be conducted to determine reasons why the result of the work value "management" conflicts with the result of the work value "intellectual stimulation" between the selected tenth-grade Thai girls in Bangkok and Chiangmai in the present study.

10. Further investigation should be conducted to determine how and why Bangkok tenth-grade girls are more intangible in orientation to work than are Chiangmai's girls.

A COMPARATIVE STUDY OF WORK VALUES  
BETWEEN SELECTED TENTH - GRADE  
THAI GIRLS IN BANGKOK  
AND CHIANGMAI, THAILAND

by

Bularat Suvarnabriksha Sitthiphong

A THESIS

Submitted to

Oregon State University

in partial fulfillment of  
the requirements for the  
degree of

Doctor of Education

Completed November 1980

Commencement June 1981

APPROVED:

Redacted for Privacy

Professor of Education  
in charge of major

Redacted for Privacy

Division Coordinator, School of Education

Redacted for Privacy

Dean of Graduate School

Date thesis is presented NOVEMBER 17, 1980

Typed by CAMPUS PRINTING & COPY CENTER

For BULARAT SUVARNABRIKSHA SITTHIPHONG

## ACKNOWLEDGEMENTS

I wish to express my gratitude and appreciation for the assistance and cooperation of the participants, without whose help this study could not have been completed.

A special debt of gratitude and appreciation is due to Dr. Carvel W. Wood, the chairman of the doctoral committee, for his advice, encouragement, understanding and tremendous assistance from the beginning to the completion of this study.

I am also indebted to Dr. A. Michael Colbert, Dr. Gerald L. Becker, Dr. Arnold W. Flath and Dr. Philip J. O'Neill, members of my doctoral committee, for their advice, assistance and understanding. Without their guidance, this study would not have been completed.

A special thanks is extended to Dr. E. Wayne Courtney for his assistance in the statistical aspects of the study.

Appreciation is further due to my parents-in-law Capt. Thongkam and Mrs. Jurai Sitthiphong for their financial support and for taking good care of my daughter while I attended the university.

A special note of gratitude goes to my parents, Booncher and Boppa Suvarnabriksha, who sacrificed everything in their lives for me and my study.

Especially, I would like to extend my gratitude to my beloved husband Norkun, for his assistance, encouragement, understanding and true love. Finally, to my daughter Patiporn, a special thanks for her patience and for being a good girl while her parents completed their education.

## TABLE OF CONTENTS

Chapter	Page
I INTRODUCTION	1
Statement of the Problem	2
Significance of the Study	3
Assumptions of the Study	6
Limitations of the Study	6
Definition of Terms	7
II REVIEW OF RELATED LITERATURE	10
Definitions and Concepts of Work, Value and Work Values	10
Work	10
Value	11
Work Values	12
Theoretical Framework of the Study	12
The Relationship of Work Values to Personal Characteristics	15
Sex and Work Values	15
Age and Work Values	17
Scholastic Ability and Work Values	18
Religion and Work Values	19
Race or Ethnic Background and Work Values	19
Family Socioeconomic Background and Work Values	20
The Influence of Environment on an Individual Work Values	21
Summary	21
III METHODS AND PROCEDURES	23
The Sample Population and Sampling Methods	23
Development of Research Instruments	24
Data Collection Procedure	26
Analysis of Data	27
The Hypotheses	30
VI PRESENTATION AND ANALYSIS OF DATA	34
Demographic Data	34
Comparison of Work Values of the Selected Tenth-Grade Thai Girls in Bangkok and Chiangmai, Thailand	39
Confidence Intervals	54
V SUMMARY, CONCLUSIONS AND DISCUSSION, AND RECOMMENDATIONS	77
Summary	77
Conclusions and Discussion	85
Implications	90
Recommendations	92

## TABLE OF CONTENTS (Cont'd)

Chapter	Page
BIBLIOGRAPHY	95
APPENDICES	
Appendix A: The WVI	101
Appendix B: The Thai Personal Questionnaire	105
Appendix C: The Translated Personal Questionnaire	106
Appendix D: The Thai Covering Letter	107
Appendix E: The Translated Covering Letter	108
Appendix F: Jury of Thai Educational Experts	109
Appendix G: Model of 1978 Thailand Educational Pyramid	110
Appendix H: Map of Thailand Educational Regions	111
Appendix I: Fog Index Readability	112



## LIST OF ILLUSTRATIONS

	Page
1. Histogram of the F Values Computed for the 15 Hypotheses	49-53
2. Graph of the Estimated Range Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok	66
3. Graph of the Estimated Range Work Value Means Scores of All Tenth-Grade Thai Girls in Chiangmai	67
4. Graph of the Estimated Differences of Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok and All Those in Chiangmai	76

## LIST OF TABLES

Table	Page
1. Number of the Selected Tenth-Grade Thai Girls and Percentage of Participation.	27
2. One-Way Analysis of Variance With F Statistic	27
3. Ages of the Selected Tenth-Grade Thai Girls	35
4. A Comparison of the Number of Thai-Thai and Thai-Chinese Girls	36
5. Religions of the Selected Tenth-Grade Thai Girls	36
6. Levels of the Scholastic Ability of the Selected Tenth-Grade Thai Girls	38
7. Family Socioeconomic Background of the Selected Tenth-Grade Thai Girls	39
8. Work Value Scales and Items on WVI	39
9. Summary of the Group Means and the Results of the Analysis of Variance of 11 Hypotheses That Were Not Significantly Different at 0.05	41
10. Summary of the Group Means and the Results of the Analysis of Variance of 4 Hypotheses That Were Significantly Different at 0.05	42
11. Summary of the Range of Estimated Work Value Mean Scores for All Tenth-Grade Thai Girls in Bangkok and Chiangmai, Thailand at 0.05 Level of Significance	55
12. Summary of the Range of Estimated Differences Between Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok and All Those in Chiangmai, Thailand, at 0.05 Level of Significance	69

A COMPARATIVE STUDY OF WORK VALUES  
BETWEEN SELECTED TENTH-GRADE  
THAI GIRLS IN BANGKOK AND  
CHIANGMAI, THAILAND

CHAPTER I

INTRODUCTION

Thailand has been going through a period of rapid development, like many other developing countries. Changes occur in almost every sphere. The external changes in certain aspects of social structure can readily be perceived, such as changes in life styles, family structures, legal and political awakening, etc. (Komin, 1977, p.567).

The changes affecting Thai society are also affecting Thai education. In 1977, the Royal Thai Government introduced the Thailand National Educational Scheme (Thailand, Ministry of Education, 1977), which emphasizes career education, preparing Thai students in the new world of work and educational research.

Obviously, career decision-making would be one of the most important decisions in an individual's life. Assistance from a career counselor in making choices and career planning is needed for students, especially high school students (Tolbert, 1974). Consequently, a research study, not only on career education and its components, such as career development and career planning, but also on career counseling is useful for Thailand.

Career counselors define career development as a lifelong process of developing work values (Tolbert, 1974) which involves personal lifestyles, personal values and leisure time (Hoyt et al., 1974). Therefore basic research into the values, especially the work values of Thai

students, must be conducted before Thai counselors can intelligently guide their students in career selection.

### Statement of the Problem

Career counseling in Thailand is still in a beginning stage. Thai counselors have lacked information about careers, career development and about the students themselves. Usually, only the information about scholastic ability and family socioeconomic background are used in advising Thai students on their future studies and career possibilities (limited information through the Ministry of Education). Other factors, such as the influence of environment and work values, are not regularly considered in career counseling. Most Thai counselors are not specially trained in advising the students, and they are always selected from among the classroom teachers. Consequently, career counseling for Thai students does not enjoy the success that it might. Moreover, limited research has been conducted into the influence of the environment in the work values of Thai high school students, especially high school girls. This study serves as a basic study to further studies necessary to examine the changes occurring among Thai women, such as change in values, attitudes, lifestyle and employment status.

The purpose of this study, consequently, was to determine and compare the work values between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand, using statistical techniques, thereby providing the foundation for a more systematic approach to career counseling and curriculum planning in Thai high schools.

### Significance of the Study

Fifty years ago, Thai parents trained their daughters only in housework because they believed that their daughters' only possible career was home-making. However, with the advance of technology and the infusion of Western culture in Thailand, the belief that women could only be housewives gradually changed. Thai girls began to attend school and had a chance to study for various careers. At first, the most popular careers among Thai women were teaching and nursing (Landon, 1939).

Today, Thai women have almost as equal an opportunity to attend schools and to choose their careers as Thai men (Thailand, Ministry of Education, 1977). The number of Thai women who earn a bachelor's or higher degree increases each year. In 1977, the number of female teachers with at least a bachelor's degree in the Kingdom of Thailand was 22,163, whereas the number of male teachers who had at least a bachelor's degree was 17,259 (Thailand, Ministry of Education 1978). Furthermore, the Office of University Affairs reports the high number of Thai women in the whole Kingdom who graduated from universities in many major areas in 1977 as follows: Medical Science, 922 or 45.31% of the total graduates, Humanities, 1118 or 88.10% of the total graduates, Natural Science 483 or 47.92% of the total graduates and Social Science 2530 or 46.57% of the total graduates (Thailand, Office of University Affairs, 1978). These suggest that Thai women may now have the advantage in their studies and careers, and suggest that attitudes and values of Thai women about work may have changed.

Contributing to the increasing educational level of Thai women is the problem of inflation which the Thais are facing. More Thai women must now work outside their homes, playing larger roles in supporting themselves, their families, and their society than previously. Thus, Thai girls and women see a need to study to prepare themselves for future careers.

According to Eli Ginzberg's Theory of Occupational Choice (1951), an individual moves through a series of related stages in the process of choosing an occupation. Values, environmental realities, psychological attributes, and educational opportunities and achievement affect this process. Furthermore, Ginzberg indicates that by age 11, most children begin to realize they have to work (Ginzberg et al., 1951). Ginzberg calls this the "Tentative Period" (age 11-17). During this stage, interests, abilities and values are used in making choices. Taking this into consideration, this study focuses on the tenth grade because the average age of Thai students in this grade is 16 (Thailand, Ministry of Education, 1978a). (Appendix G)

John L. Holland (1973) indicated that personality and environment had an influence on an individual's career decision-making. Moreover, Miyahira (1976) found that career decision-making was related to an individual's work values: the individual, always chose his/her career according to his/her work values. It can be hypothesized that an individual's work values reflect his/her personality and his/her environment, and that people in different cities or countries may have different indigenous work values. In order to test this idea, this

study compared the work values of students living in two cities in Thailand: Bangkok, the capital and largest city in population, located in central Thailand; and Chiangmai, the other major Thai city, located in northern Thailand.

Bangkok has been the capital city since 1782 (Blofeld, 1979). The educational region of Bangkok is Region One (Thailand, Ministry of Education, 1978). (Appendix H) The population of Bangkok was about five million in 1978 (Thailand, National Economic and Social Development Board, 1979). Basche (1971) described Bangkok as an urban, western, and modern city and Thais who lived there were considered more liberal than Thais who lived elsewhere. Furthermore, Blofeld (1979) gave surprising information about Thai women in Bangkok which concerned women in business and women controlling family expenditure's.

Chiangmai is considered Thailand's second largest city. Blofeld (1979) approximated that there were 45,000 people in Chiangmai. Basche (1971) described Chiangmai as a land of beautiful girls, with a slower pace of life, and conservative people. Although Chiangmai University was founded in 1964 and Chiangmai is classified to be the second urban and tourist city of Thailand (Smith et al., 1968), the residents of Chiangmai are considered to be conservative compared to those of Bangkok. Moreover, Chiangmai educational district belongs to Region Eight of the Thai educational system (Thailand, Ministry of Education, 1978). (Appendix H)

### Assumptions of the Study

The following assumptions are basic to the correct interpretation and use of this study. It was assumed that:

1. The sample in this study was representative of all tenth-grade Thai girls in both Bangkok and Chiangmai.
2. The girls tested had never before answered the Work Values Inventory (WVI).
3. The educational standards of each school from which the students were selected were equal.
4. The sample was capable of assessing and recording its perception of personal work values.
5. The results of the study were representation of the work values of all tenth-grade Thai girls in both Bangkok and Chiangmai.

### Limitations of the Study

1. Only the WVI (Appendix A) by Super (1970), translated into Thai by the investigator, was used to determine the work-value scores of the sample.
2. A personal questionnaire (Appendix B) was designed by the investigator to determine the subjects' city, kinds of school, age, family socioeconomic background, race or ethnic background, scholastic ability, and religion.
3. All subjects were female students in the tenth grade attending public and private schools in Bangkok and Chiangmai in 1979-80.



## Definition of Terms

### Work Values

Maples (1977, p. 7) describes a work value as an "idea which motivates a man or a woman to work and which might be achievable in an ideal job." Similarly, Super (1970, p. 8) views work values as the "satisfaction which people often seek in their jobs or as a result of their jobs." Tremain (1978, p. 5) defines work values as "aspects of the job which reflect personal value orientation, including beliefs, needs, and attitudes." However, in this study work values are goals, needs and beliefs an individual has toward his/her job.

### Work-Value Scale

Super (1970) uses a scale of 15 words to measure work values. They are defined as follows:

1. Achievement -- A goal present in work that gives one a feeling of accomplishment in doing jobs well. Achievement appears to assess a task orientation; a liking for the kind of work that provides visible, tangible results.

2. Altruism -- A goal present in work that enables one to contribute to the welfare of others. Altruism assesses social service values.

3. Associates -- A goal characterized by work that brings one into contact with fellow workers whom he likes.

4. Creativity -- A goal associated with work that permits one to invent new things, design new products, or develop new ideas.

5. Economic Returns -- A goal present in work that pays well. Economic returns represent a type of value often referred to as materialistic, or the attaching of importance to tangibles and to earnings.

6. Esthetic -- A goal inherent in work that permits one to make beautiful things and contribute beauty to the world.

7. Independence -- A goal inherent in work that permits one to work in his own way, as fast or as slowly as one wishes.

8. Intellectual Stimulation -- A goal satisfied by work that provides opportunity for independent thinking and for learning how and why things work. Intellectual stimulation appears to assess a quality which characterizes people with professional and scientific interests of an abstract type, a liking for using one's intellectual abilities and for exercising one's judgment.

9. Management -- A goal satisfied by work that permits one or more to plan and lay out work for others to do. Management values characterize business students, people interested in contact occupations, and persons in occupations requiring that they plan their own work even if not that of others.

10. Prestige -- A goal associated with work that gives one high standing in the eyes of others and evokes prestige. Prestige taps a desire for the respect of others rather than for status for its own sake.

11. Security -- A goal inherent in work that provides one with the certainty of having a job even in hard times. Security is related to economic returns, as it is a secondary kind of material value. It reflects, too, a degree of interest in getting the rewards of work.

12. Supervisory Relations -- A goal satisfied by work that is carried out under a supervisor who is fair and with whom one can get along. Supervisory relations denote the attaching of importance to getting along with and pleasing the boss.

13. Surroundings -- A goal associated with work that is carried out under pleasant conditions.

14. Variety -- A goal present in work that provides an opportunity to do different types of jobs. Variety appears to reflect a pleasure orientation rather than a task orientation.

15. Way of Life -- A goal associated with the work that permits one to live the kind of life he chooses and to be the type of person he wishes to be.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

The review of related literature is divided into four sections: 1) definitions and concepts of work, value and work values; 2) theoretical framework of the study; 3) the relationship of work values to personal characteristics; and 4) the influence of environment on an individual's work values.

#### Definitions and Concepts of Work, Value, and Work Values

##### Work

Since the era of the Greeks and the Romans, many philosophers have studied the concept of "work." Tilgher (1962, p. 11) stated that "work is curse and the word 'work' in Greece has the same root or the meaning as the word 'sorrow'."

In the United States of America, people derived their concept of work from two sources: social and religious (Wrenn, 1964). The social sources saw work as being worthwhile, as possessing some virtue. Wrenn traced this concept back to the feudal European concept of work as a basis for dignity: work was for man who had brain and muscle. The religious saw work in quite another way. Luther in Borow (1964) stated that work was carrying out God's purpose in life, and Calvin (Borow, 1964) stated that work was required of man by God. The definition and concept of work in the United States changed with the advent of automation. Tolbert (1974, p. 24) defined work as an activity that was difficult, unpleasant, and done only out of necessity: "It is used here for purposeful: mental, physical, or combined mental-

physical activity that produces something of economic value. Thus, work may produce a service for others as well as a material product." For the purposes of her study of work values and job satisfaction, Maples (1977, p. 14) defined work as "an activity calling for the expenditure of effort toward some definite achievement, goal or outcome. Monetarily paid or not, difficult or easy, it is effort expended toward a particular end."

### Value

Several researchers have studied the concept and definition of "value" and have drawn various conclusions. Hillard (1950) defined the concept of "value" as results occurring in the situation contexture determined by the reaction of a person to another person or thing. Kluckhohn (1951) described a value as an individual's beliefs about the desirable. Rokeach (1973, p. 5) stated that "value is an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence." Tolbert (1974, p. 9) defined values as "an individual's sources of satisfaction." Komin (1977, p. 575-578) concluded that:

Value is a belief about the desirable which involves some knowledge, some degree of affect or feeling and a behavioral component ...the functions and properties of values are derived in terms of hypothesis and conclusions such as value help to organize, guide, and direct behavior, many values are not explicitly or consciously held, and the values held by a person are strongly influenced by the values he judges other people to hold.

Finally, Goffman (1959) found that we might use values as standards to guide the way in which we present ourselves to other people.

### Work Values

Descriptions of work values have been offered by many people. King (1975, p. 9) defined work values as "factors, responses, reactions which people feel are important and express consistently about job." Maples (1977, p. 7) defined work values in a broader sense: "Work value is an ideal goal which motivates a man or a woman to work and which might be achievable in job." Katz (1963) hypothesized that people were different and each individual's work values depended on his/her background. Consequently, Katz asserted that personal background was the most important factor in forming the individual's work values.

### Theoretical Framework of the Study

The theoretical framework of this study started with "A Theory of Vocational Development" presented by D. E. Super (1953). Super's theory had ten propositions, as follows:

1. People differ in their abilities, interests and personalities.
2. They are qualified, by virtue of these circumstances, each for a number of occupations.
3. Each of these occupations requires a characteristic pattern of abilities, interests and personality traits, with tolerances wide enough, however, to allow both some variety of occupations for each individual and some variety of individuals in each occupation.
4. Vocational preferences and competencies, and situations in which people live and work, and hence their self-concepts, change with time and experience (although self-concepts are generally fairly stable from late adolescence until later maturity), making choice and adjustment a continuous process.

5. This process may be summed up in a series of life stages, characterized as those of growth, exploration, establishment, maintenance, and decline, and these stages may in turn be subdivided into (a) fantasy, tentative and realistic phases of the exploratory stage, and (b) the trial and stable phases of the establishment stage.
6. The nature of the career pattern (that is, the occupational level attained and the sequence, frequency, and duration of trial and stable jobs) is determined by the individual's parental socioeconomic level, mental ability, and personality characteristics, and by the opportunities to which he is exposed.
7. Development through the life stages can be guided partly by facilitating the process of maturation of abilities and interests and partly by aiding in reality testing and in the development of the self-concept.
8. The process of vocational development is essentially that of developing and implementing a self-concept is a product of the interaction of inherited aptitudes, neural and endocrine make-up, opportunity to play various roles, and evaluation of the extent to which the results of playing meet with the approval of superiors and fellows.
9. The process of compromise between individual and social factors, between self-concept and reality, is one of role playing, whether the role is played in fantasy, in the counseling interview, or in real life activities such as school classes, clubs, part-time work, and entry jobs.
10. Work satisfaction and life satisfaction depend upon the extent to which the individual finds adequate outlets for his abilities, interests, personality traits, and values; they depend upon his establishment in a type of work, a work situation, and a way of life in which he can play the kind of role which his growth and exploratory experiences have led him to consider congenial and appropriate. (p. 189-190)

The second theory used in this study was the "Theory of Occupational Choice" presented by Eli Ginzberg (Ginzberg et al., 1951). This theory indicates that people make decisions relating to occupational choice more than once in their lives. Furthermore, he suggested that

the process of occupational choice is affected by values, environmental realities, psychological attitudes, and educational opportunities and achievement. It is largely irreversible in nature and characterized by compromises between desires and reality. According to Ginzberg, the occupational choice process starts from birth and continues through three periods: Fantasy, Tentative and Realistic. The Fantasy period covers birth through age 11, during which the child believes that he/she could do whatever he/she wants. The Tentative period covers ages 11-17, during which the individual's interests, abilities and values are used in making choices. The Tentative period has four substages: interests, capacities, values and transition. These four substages could be summarized as follows:

1. Interests (age 11-12)--Interests are the primary basis for choice but the children also realize that abilities are necessary.

2. Capacities (age 13-14)--The adolescent has capacities in his/her plan but knowledge of capacities is not complete, and choices are experimental.

3. Values (age 15-16)--The values enter into the choice process, assuming dominance over capacities and interests.

4. Transition (age 17)--The individual combines interest, capacity and value in the choosing process, and realizes that whatever is decided will have an impact in the future.

The last stage in Ginzberg's theory is the Realistic period. This stage lasts from age 17 through young adulthood, during which time a compromise is sought between reality factors, job requirements, educational opportunities and personal factors. According to Ginzberg, it is during the Realistic period that choice is made.



Besides the above theories, Tiedeman and O'Hara (1963) also presented a career development system. They defined career development as a process of building a vocational identity through differentiation and integration as one confronted work. The newness of the experiences demanded that a new identity be formed.

Anne Roe developed the "Need Theory" (Roe and Siegelman, 1964) which was also relevant to this study. Roe studied human needs and created the following:

1. Loving, protecting and demanding homes would lead to present-orientation in the child and later person-orientation in occupations.
2. Rejecting, neglecting, and casual homes would lead to non-person orientation in occupations. (p. 7)

In 1970 Hoppock developed his "Composite Theory" which stated that personal need is the center of the individual's vocational development and decision-making, but that environmental information is also critical. August B. Hillingshead (1949) was concerned with social class and developed a theory that the social class of an individual affects his/her job planning, job availability and feeling of certainty about plans.

### The Relationship of Work Values to Personal Characteristics

#### Sex and Work Values

Several studies have noted an apparent relationship between work values and sex. Ginzberg's (1951) study of work values of male and female college students indicated that male college students were relatively reward-oriented, stressing achievement and success; whereas female college students placed less emphasis and importance upon getting

ahead in life and more emphasis on interpersonal relationships in both work and their family roles. Singer and Stefflre (1954) concluded that high school girls were interested in jobs which offered interesting experiences and opportunities for social service. Boys, on the other hand, demonstrated greater desire for power, profit and independence.

Schwarzweiler (1959) stated that the number of high school girls who expected to attend college was significantly less than the number of boys who aspired to attend. Furthermore, Schwarzweiler (1960) indicated that some girls preferred to work in jobs which serve society, or to work with people. Thompson (1966) found that some girls did not like to work in jobs which required leadership. Finally, Risch and Beymer (1967) described the difference in work values between the sexes as follows: females played expressive roles and males played instrumental roles in the family and occupational system of a society.

According to "Thai Life" (Journal of Social Science, Thammasart University, 1976), the attitude of Thais on sexes can conclude that Thais have placed a great deal of importance on their sexual roles. They believe that men are stronger than women: Hence a man has to be the head of his family and a woman is only a housewife. Thai men always take roles that show their strength, endurance, power and leadership abilities. Conversely, Thai women have to take care of their children, do the household work and work only inside their houses.

Sharp (1952) called the Thai men "the paddy" and the Thai women "the rice." That is, the man is the seed rice, able to reproduce itself, but the woman is rice polished for eating only. This concept relates to the work values and career decision-making of Thai people.

### Age and Work Values

Many studies have demonstrated little change in work values of students at any school level. Dipboye and Anderson (1959) found that occupational values were relatively well-formed by the time students completed the ninth grade and little change took place thereafter.

Gribbons and Lohnes (1965) observed eighth and twelfth grade students and found that the twelfth graders talked little of plans for social service and travel, but showed great concern for preparing themselves for work and their approaching marriage and family responsibilities.

Eyde (1962) concluded that college female students wanted to achieve independence through their work. Likewise, Kuhlen and Johnson (1952) found that single women strongly held values related to marriage and family in their 20s, but held them less strongly when they reached their 30s, at which time they were more concerned about their vocational advancement. Supporting the idea that age is important for human work values, Katzell (1964) stated that values and development changed depending on experience.

For Thai people, the relationship of age to work values has not been studied. However, the report on child labor by the Department of Labor, Ministry of the Interior (Thailand, 1976) gave some relevant information that the Thais used age as one indicator to determine whether they were ready to work or not. Other determining factors included family socioeconomic status, failure of compulsory education, and failure of family planning.

### Scholastic Ability and Work Values

In Thompson's study (1966), the desire of high school students for scholastic ability was positively correlated to their desire for interesting and challenging jobs. Schwarzweller (1959) said that the I.Q. level of secondary school students influenced their work-value orientation. High I.Q. scores were positively correlated with the values of friendship and service to society. Stefflre (1959) also found that high school seniors with high scholastic ability (those averaging grades A and B) emphasized altruism more than students with C and D averages, and put less emphasis on control over others and the chance to make money.

As for high school girls, Lee and her associates (1971) found that high school girls who had high grade-point average also had high scores in choosing work that provided an opportunity for self expression, creativity, and interesting activity.

In Thailand, the scholastic ability measured by the Student Educational Progress Report of Thai students is considered the most important factor in counseling Thai students on their field of study for a future career (Thailand, Ministry of Education, 1975). At the secondary level, the Student Educational Progress Report can be used to indicate which major field Thai students could choose for further study. Those students with a high G.P.A. are encouraged to go on to a college or university and major in science. Those students with a low G.P.A. have only two options...leave school to find work, or attend vocational schools.

### Religion and Work Values

Luciano (1971) found that the work values of some rural, male high school students in Puerto Rico were related to their religions. In Thailand, most of the population shares the same religion: 93.6 percent are Buddhists, 3.9 percent are Islams, .6 percent are Christians, and 1.9 percent are other religions (Thailand, Statistical Yearbook, 1970-71). The Buddhists believe that when people do good things, they receive good in return. Conversely, when people do bad things, misfortunes occur. Furthermore, the Buddhists also believe that men have to be self-reliant, diligent and accept responsibility in their work. Work can bring happiness to all people (Manggalatthedipani in Pali Language, Thai edition, 1964).

### Race or Ethnic Background and Work Values

Literature relating to the effect of race or ethnic background on work values is scarce. Howell (1979) studied the effect of race and gender in the formation and maintenance of career decisions. He concluded that race tended to affect the process of educational aspiration-formation, whereas gender affected the development of occupational aspirations. However, he noted that race effects often depended upon gender, and that gender influences frequently interacted with race. Yuprasert (1976) compared the work values of American and Thai college freshman students and found significant differences in work values in both sexes for 11 of Super's (1970) 15 scales. Finally, she concluded that American and Thai college freshmen students had significant cultural differences which were reflected in their work values.

### Family Socioeconomic Background and Work Values

In 1943, Maslow stated that the basic human needs were physical needs, safety needs, love, self-esteem and self-actualization. This statement was supported by the theory that the family socioeconomic background was the primary factor in creating a person's work values.

In Thailand, people recognize only physical needs: food, shelter, clothes and medicine (Thailand, Mahidol University, 1976). It was further reported that these four basic needs force or motivate Thai people to work and also create their work values.

Several studies have shown the relationship of work values to the family socioeconomic background of men and women. Center (1948) studied male workers with low, middle, and high socioeconomic level jobs. He concluded that male workers with low socioeconomic level jobs preferred to have security in their jobs, whereas those from higher level jobs preferred to have opportunities for self expression and interesting experiences. Related to this study, Kinnane and Bannon (1964) found that college women whose fathers worked at lower social class jobs had characteristics more like their mothers; but those whose fathers worked at high social class jobs were more like their fathers, who had negative attitudes about women working.

Risch and Beymer (1967) stated that girls whose mothers were employed differed in characteristics from those whose mothers were not employed. Thompson (1966) concluded that high school students of both sexes whose mothers worked emphasized security and thought their work more important than students whose mothers did not work.

### The Influence of Environment on an Individual's Work Values

Many researchers who studied work values found that people living in different places had different work values. Humbert (1966) studied the work values of urban and rural students in New Mexico and found that urban students attached more importance to work that was difficult and complex, involved interaction with others, and was accomplishment oriented. Rural students, on the other hand, attached more importance to work that was unrestricted and free.

Luciano (1971) reported that urban students in Puerto Rico attached more importance to the work values of creativity, management, achievement, surroundings, security, associates, prestige and economic returns; whereas rural students did not attach as much importance to those values in jobs. In the same year, Lybarger (1971) stated that rural and urban students in Utah possessed similar vocational needs. Davis (1972) indicated that tenth-grade students from urban areas were significantly more vocationally mature and had significantly higher idealistic and realistic educational aspirations than did rural students. These studies tended to demonstrate the influence of environment on work values.

### Summary

The literature reviewed provided a rationale for the present study. It demonstrated the value in investigating the work values of adolescent Thai girls as a basic tool for career counseling. In addition, the studies clarified the influence of an individual's personal characteristics and environment on his or her work values. Since

the study of work values among Thai students has barely begun, the majority of the literature reviewed was related to the work values of students in the United States. Research into the work values of Thai students, and especially Thai women is essential if career counseling is to be effective.



## CHAPTER III

### METHODS AND PROCEDURES

This chapter presents information concerning the sample population and the sampling method, the selection and development of research instruments, the data collecting procedure, analysis of data, and the hypotheses in this study.

#### The Sample Population and Sampling Method

The sample population in this study was selected from tenth-grade Thai girls in public and private schools in Bangkok and Chiangmai, Thailand.

A stratified sampling method was used in selecting the sample. Yates (1949, p. 23) explains the stratified sampling method as follows: "In a stratified sample the population of sample units is subdivided into groups or 'strata' before selection of the sample. These strata may all contain the number of units, or differing numbers of units."

The tenth-grade Thai girls in each city were arranged into two groups: a group of tenth-grade Thai girls in public schools and a group of tenth-grade Thai girls in private schools. The names of 300 tenth-grade Thai girls from public schools and 150 tenth-grade Thai girls from private schools were drawn at random for each city. The colleagues of the investigator were asked to administer the questionnaires to the selected tenth-grade Thai girls in their

schools for both Bangkok and Chiangmai. Table 1 displays the number of tenth-grade Thai girls drawn at random in this study.

### Selection and Development of Research Instruments

#### Selection of Research Instruments

The instruments used in this study were the Work Values Inventory (WVI) by Super (1970) translated into Thai by the investigator (Appendix A), and a personal questionnaire in Thai development by the investigator. The Work Values Inventory was designed to measure the 15 work values described in Chapter I. The subjects responded to 45 statements that concern the satisfactions which people seek in their work. The score for each statement ranges from one to five, as follows:

- 1 = Unimportant
- 2 = Of Little Importance
- 3 = Moderately Important
- 4 = Important
- 5 = Very Important

In each work value, a score from three through five would indicate that the respondent placed relatively greater importance on the value being measured. Out of 45 statements in the instrument, three pertain to each of the 15 work values. Thus, the scores for each work value would vary from 0-15, with 9-15 indicating that the respondent places greater importance on the value being measured.

The personal questionnaire developed by the investigator consisted of seven questions concerning city of residence, type of school, age, race or ethnic background, religion, scholastic ability and family socioeconomic background (Appendix B and C).

### Development of Research Instruments

Before administering the WVI to the selected girls in Thailand, the investigator used the Fog Index Readability (Appendix I) to test the readability of the English textbook which is required for all tenth-grade Thai students, English for Thai Students, Book Five, published by the Ministry of Education (Thailand, 1979). The investigator selected the text of the last chapter of this book to test for readability. The result of the test indicated that at grade ten, Thai students are expected to read at the ninth-grade level, whereas the WVI has a readability level of grade twelve. Consequently, the WVI needed to be translated into Thai by the investigator to insure reading comprehension by the respondents.

A group of Thai students at Oregon State University were asked to answer the WVI in both English and Thai (Appendix A). This group of Thai students understood and did not have any questions on the translated WVI. In addition, both the personal questionnaire developed in Thai by the investigator and the translated WVI were sent to three Thai educational experts in Thailand who had their doctorate degrees from the United States (Appendix F). The three experts were asked to evaluate the instrument in terms of format, content, clarity and comprehensiveness. Each expert was asked to review each of the

statements, list recommendations, and make suggestions for revisions. The suggestions were compiled and reviewed, and their recommendations were noted. Several items were subsequently revised for clarity. No items were deleted or added.

In addition, thirty Thai tenth-graders from Bangkok, including both sexes, who were not included in the sample selected for the study were asked to complete both questionnaires. They were asked to identify the statements which were not clear or which were difficult to understand. No such statements were identified.

#### Data Collection Procedure

Before administering the questionnaires to the subjects. A cover letter from the investigator was attached to the front page of the questionnaires (Appendix D and E) for each respondent.

Then during January and February 1980, the questionnaires were administered to the subjects in their schools by the investigator's colleagues with the cooperation of the principals and the teachers of those schools. Within two months, 771 completed questionnaires were returned to the investigator. The percentage of questionnaires returned was 85.67 percent. Of these, 261 and 120 completed questionnaires were from the girls in the Bangkok public and private schools, respectively. From Chiangmai, 248 and 142 completed questionnaires were from the girls in public and private schools, respectively. Table 1 displays the number and percentage of the tenth-grade Thai girls who participated in this study.

Table 1. Number of the selected Tenth-Grade Thai Girls and Percentage of Participation.

Kind of Schools	Bangkok		Chiangmai		Percentage
	Randomly	Participated	Randomly	Participated	
Public	300	261	300	248	84.83
Private	150	120	150	142	87.33
Total	450	381	450	390	85.67

### Analysis of Data

The answers from the personal questionnaire were used to analyze the demographic data in this study. Because this was a comparative study, the one-way analysis of variance, fixed designed and unequal size matrix with F statistic at 0.05 level of significance was selected for comparison of means and to test for differences among mean scores.

Table 2. One-Way Analysis of Variance Table with F Statistic

Source of Variation	df	ss	Ms	F
Between Groups	1	A	a/1	Ms (between)/ Ms (error)
Within/ (Error)	769	B	B/769	
Total	770	C		

For this study, the confidence intervals were also computed. Handel (1978, p. 373) defines the confidence intervals as "a range of values constructed around an estimate of a parameter to increase

the probability of the estimate being accurate". Thus, to determine the confidence intervals in this study, it was necessary to determine the estimated work value mean score of all tenth-grade Thai girls in Bangkok and in Chiangmai. Handel (1978) explains it is necessary to determine the confidence intervals because there is no guarantee that the sample means for the sample population is the same as the means for the population parameter. Therefore, it is necessary to determine the range of a population parameter mean. The estimated range of population parameter is called the confidence intervals.

Consequently, in this study the values of mean square, standard deviation, standard error mean, degree of freedom, number of the participants, and the value of t- test at 0.05 level of significance (95 percent confidence coefficient) were used to determine the confidence intervals. Usually, when the 95 percent confidence coefficient is used, it means that only five times in 100 the mean of the population parameter would occur outside the estimated range of the population parameter. Consequently, at 95 percent of confidence coefficient, or 0.05 level of confidence, with a degree of freedom equal to 769, the value of t- test is equal to 1.96.

The formulas for computing the confidence intervals or the estimated work value mean scores of all tenth-grade girls in Bangkok and all those in Chiangmai are as follows:

$$\bar{X} - 1.96 (S_{\bar{X}}) \leq \mu_1 \leq \bar{X} + 1.96 (S_{\bar{X}})$$

where:  $\mu_1$  represents estimated mean scores of population parameter

$\bar{X}$  represents mean score of each sample group for every scale

$S_{\bar{X}}$  represents standard error mean

and 
$$S_{\bar{X}} = \frac{S}{\sqrt{n}}$$

where:  $S$  represents standard deviation of each sample group

$n$  represents number of participants in each sample group

In much the same manner that the confidence intervals were used earlier, such estimates can be computed for the difference between means. Moreover, this study was a comparative study, hence the difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai were computed.

"In computing confidence intervals for differences between means, essentially the same procedure is followed as in determining any confidence intervals. First, compute the standard error of mean difference" (Popham and Sirotnik, 1973, p. 146). Thus, the formulas for computing the standard error of mean difference and the estimated differences between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai are as follows:

$$SD^2 = MSE \left[ \frac{1}{n_1} + \frac{1}{n_2} \right]$$

where: SD represents standard error of mean difference  
 MSE represents mean square of each (analysis of variance)  
 $n_1$  represents number of participants in group I  
 $n_2$  represents number of participants in group II

So

$$\bar{X}_1 - \bar{X}_2 - 1.96(SD) \leq \mu_1 - \mu_2 \leq \bar{X}_1 - \bar{X}_2 + 1.96(SD)$$

where:  $\bar{X}_1 - \bar{X}_2$  represents difference between two sample group means

$\mu_1 - \mu_2$  represents estimated differences between mean scores of population parameter

### The Hypotheses

This study utilized a one-way analysis of variance, fixed design and unequal size matrix to test the 15 hypotheses set forth. The hypotheses were:

Ho (1) There is no significant difference in mean scores of work value "creativity" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

Ho (2) There is no significant difference in mean scores of work value "management" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.



- Ho (3) There is no significant difference in mean scores of work value "achievement" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (4) There is no significant difference in mean scores of work value "surroundings" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (5) There is no significant difference in mean scores of work value "supervisory relations" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (6) There is no significant difference in mean scores of work value "way of life" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (7) There is no significant difference in mean scores of work value "security" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (8) There is no significant difference in mean scores of work value "associates" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

- Ho (9) There is no significant difference in mean scores of work value "esthetic" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (10) There is no significant difference in mean scores of work value "prestige" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (11) There is no significant difference in mean scores of work value "independence" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (12) There is no significant difference in mean scores of work value "variety" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (13) There is no significant difference in mean scores of work value "economic returns" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.
- Ho (14) There is no significant difference in mean scores of work value "altruism" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

Ho (15) There is no significant difference in mean scores of work value "intellectual stimulation" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

## CHAPTER IV

### PRESENTATION AND ANALYSIS OF DATA

This chapter was designed to present the information obtained from the WVI and the personal questionnaire, to analyze the data by testing the hypotheses and to determine the confidence intervals of this study. Moreover, this chapter contains the procedure and the statistical techniques which were used to conduct the study and includes the demographic data regarding the students personal characteristics. This chapter is separated into three sections:

- 1) demographic data, 2) comparison of work values between the two groups of tenth-grade Thai girls in the sample population, and
- 3) the confidence intervals of the study.

#### Demographic Data

The answers to the personal questionnaire represent the demographic data collected on the selected tenth-grade Thai girls.

#### Age

The ages of the girls in this study ranged from 14 through 20. However, educational statistics by the Ministry of Education (Thailand, 1978a) indicate that the average age of tenth-grade Thai students is 16 (Appendix G). Thus, the girls in this study were grouped by age as follows: 1) above average, age 17-20; 2) average, age 16; and 3) below average, 14-15. Of the 771 girls included in the study, 16.99 percent were older than 16 years old, 40.47 percent were 16 years old and 42.54 percent were younger than 16 years old.

Data showing ages of the selected tenth-grade Thai girls for both cities are summarized in Table 3.

Table 3. Ages of the Selected Tenth-Grade Thai Girls

Age Groups (Age)	Bangkok	Chiangmai	Total	Percentage
Above average (17-20)	56	75	131	16.99
Average (16)	133	179	312	40.47
Below average (14-15)	192	136	328	42.54
Total	<u>381</u>	<u>390</u>	<u>771</u>	<u>100.00</u>

#### Race or Ethnic Background

Although, the population of Thailand includes several ethnic groups, Thai society is remarkably homogeneous. The various ethnic groups are generally well integrated into Thai society as a whole and do not operate on clearly or permanently distinct levels. From the stand point of national origin, the ethnic groups are Thai, Chinese, Westerners, Malay, Indians and Vietnamese (Blanchard, 1958).

However, in the present study, girls from only two ethnic groups participated: Thai-Thai girls and Thai-Chinese girls. Table 4 compares the number of Thai-Thai girls and Thai-Chinese girls in this study.

Table 4. A Comparison of the Number of Thai-Thai and Thai-Chinese Girls

Ethnic Groups	Bangkok	Chiangmai	Total	Percentage
Thai-Thai	293	476	665	86.25
Thai-Chinese	<u>88</u>	<u>18</u>	<u>106</u>	<u>13.75</u>
Total	<u><u>381</u></u>	<u><u>390</u></u>	<u><u>771</u></u>	<u><u>100.00</u></u>

Religion

The religion of the selected girls was another demographic characteristic recorded on the personal questionnaire. The categories included were Buddhism, Christianity, Islam, and Other. The results showed that 97.41 percent of the girls were Buddhists, 2.0 percent were Christians, and only 0.52 percent were Islams (Table 5).

Table 5. Religions of the Selected Tenth-Grade Thai Girls

Religion Groups	Bangkok	Chiangmai	Total	Percentage
Buddhists	370	381	751	97.41
Christians	11	5	16	2.0
Islams	<u>0</u>	<u>4</u>	<u>4</u>	<u>0.52</u>
Total	<u><u>381</u></u>	<u><u>390</u></u>	<u><u>771</u></u>	<u><u>100.00</u></u>

### Scholastic Ability

The subjects were asked to supply information concerning their grade point average for the previous term. This was used to measure scholastic ability.

At the time of this study, Thai schools were in the process of changing from a grading system based on percentages to one using letter grades. Consequently, both systems were used on the personal questionnaire. In "Measurement and Evaluation of Education," the Ministry of Education (Thailand, 1978b) defines grades A through E as follows:

- A = very good (equivalent to 80-100 percent)
- B = good (equivalent to 70-79 percent)
- C = fair (equivalent to 60-69 percent)
- D = pass (equivalent to 50-59 percent)
- E = fail (equivalent to 49 percent and below)

Thus, in this study the scholastic ability of the selected girls was determined according to the grading system. Table 6 displays the levels of scholastic ability of the participants.

Table 6. Levels of the Scholastic Ability of the Selected Tenth-Grade Thai Girls

Grades	Bangkok	Chiangmai	Total	Percentage
A	41	24	65	8.43
B	131	133	264	34.29
C	131	175	306	39.67
D	67	57	124	16.08
E	<u>11</u>	<u>1</u>	<u>12</u>	<u>1.56</u>
Total	<u>381</u>	<u>390</u>	<u>771</u>	<u>100.00</u>

#### Family Socioeconomic Background

Demographic data on socioeconomic background was obtained by a question on the family's annual income. The National Economic and Social Development Board (Thailand, 1980) reports that the average per capita income of Thai people in 1979 was 12,067 bahts, or \$603.35 in U.S. currency. The family socioeconomic background of the selected tenth-grade Thai girls was measured as being at, above or below this average (Table 7).



Table 7. Family Socioeconomic Background of the Selected Tenth-Grade Girls

Family Socioeconomic Background	Bangkok	Chiangmai	Total	Percentage
Above Average	325	254	579	75.10
Average (12,067 bahts)	4	22	26	3.37
Below Average	52	114	166	21.53
Total	<u>381</u>	<u>390</u>	<u>771</u>	<u>100.00</u>

Comparison of Work Values of the Selected Tenth-Grade Thai Girls in Bangkok and Chiangmai, Thailand

The 45 items in the WVI were arranged into 15 scales. Each scale relates to one hypothesis of the study. Consequently, the scores from the WVI were also separated into 15 scales. Table 8 shows which items in the WVI belong to which scales and which hypothesis.

Table 8. Work Value Scales and Items on WVI

Item	Scale	Hypothesis
15, 16, 45	Creativity	Ho (1)
14, 24, 37	Management	Ho (2)
13, 17, 44	Achievement	Ho (3)
12, 25, 36	Surroundings	Ho (4)
11, 18, 43	Supervisory Relations	Ho (5)
10, 26, 35	Way of Life	Ho (6)
9, 19, 42	Security	Ho (7)

Table 8 (Continued)

Item	Scale	Hypothesis
8, 27, 34	Associates	Ho (8)
7, 20, 41	Esthetic	Ho (9)
6, 28, 33	Prestige	Ho (10)
5, 21, 40	Independence	Ho (11)
4, 29, 32	Variety	Ho (12)
3, 22, 39	Economic Returns	Ho (13)
2, 30, 31	Altruism	Ho (14)
1, 23, 38	Intellectual Stimulation	Ho (15)

Using the one-way analysis of variance, fixed design and unequal size matrix with F statistic at 0.05 level of significance, it was found that hypothesis 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 were retained, but hypothesis 2, 3, 14, and 15 were rejected (Tables 9 and 10).

Table 9. Summary of the Group Means and the Results of the Analysis of Variance of 11 Hypotheses that were not Significantly Different at 0.05 Level.

Ho	Scale	Bangkok Girls (Means) ( $\bar{X}_B$ )	Chiangmai Girls (Means) ( $\bar{X}_C$ )	Sum of Square	F Computed	Null Hypothesis
1	Creativity	12.2126	12.3821	5.534	1.212	Retained
4	Surroundings	9.9659	10.0974	3.335	0.674	Retained
5	Supervisory Relations	11.6955	11.7282	0.206	0.027	Retained
6	Way of Life	11.1575	11.2641	2.192	0.432	Retained
7	Security	10.7008	10.7692	0.903	0.137	Retained
8	Associates	12.5039	12.2923	8.632	2.324	Retained
9	Esthetic	9.6588	9.9718	18.881	3.288	Retained
10	Prestige	10.9659	10.7821	6.513	1.059	Retained
11	Independence	11.2283	11.1000	3.175	0.830	Retained
12	Variety	9.2205	9.5256	17.948	3.377	Retained
13	Economic Returns	12.2520	12.2385	0.035	0.008	Retained

\* Critical Value of F at 0.05 Level of Significance = 3.85

Table 10. Summary of the Group Means and Results of the Analysis of Variance of 4 Hypotheses that were Significantly Different at 0.05 Level

Ho	Scale	Bangkok Girls (Means) ( $\bar{X}_B$ )	Chiangmai Girls (Means) ( $\bar{X}_C$ )	Sum of Square	F Computed	Null Hypothesis
2	Management	9.3465	9.6846	22.038	4.736	Rejected
3	Achievement	12.3622	12.7205	24.743	7.104	Rejected
14	Altruism	11.2388	11.6744	36.554	6.210	Rejected
15	Intellectual Stimulation	11.3622	11.7026	22.326	5.590	Rejected

\* Critical Value of F at 0.05 level of significance = 3.85.

### Interpretation of the Results

The null hypotheses 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 were retained, and the null hypotheses 2, 3, 14, and 15 were rejected for the two sample groups (Figure 1). Therefore, the results of the null hypotheses of this comparative are as follows:

Ho (1) There is no significant difference in mean scores of work value "creativity" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 1.212 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "creativity".

Ho (2) There is no significant difference in mean scores of work value "management" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 4.736 was statistically significant at 0.05 level of significance. Therefore, the null hypothesis was rejected. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai differed in terms of work value "management".

Ho (3) There is no significant difference in mean scores of work value "achievement" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 7.104 was statistically significant at 0.05 level of significance. Therefore, the null hypothesis was rejected. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai differed in terms of the work value "achievement".

Ho (4) There is no significant difference in mean scores of work value "surroundings" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 0.674 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "surroundings".

Ho (5) There is no significant difference in mean scores of work value "supervisory relations" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 0.027 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "supervisory relations".

- Ho (6) There is no significant difference in mean scores of work value "way of life" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 0.432 was statistically insignificant at the 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "way of life".

- Ho (7) There is no significant difference in mean scores of work value "security" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 0.137 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "security".

- Ho (8) There is no significant difference in mean scores of work value "associates" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.  
The F statistic 2.324 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "associates".
- Ho (9) There is no significant difference in mean scores of work value "esthetic" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.  
The F statistic 3.288 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of work value "esthetic".
- Ho (10) There is no significant difference in mean scores of work value "prestige" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.  
The F statistic 1.059 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "prestige".



Ho (11) There is no significant difference in mean scores of work value "independence" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 0.830 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "independence".

Ho (12) There is no significant difference in mean scores of work value "variety" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 3.377 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai did not differ in terms of the work value "variety".

Ho (13) There is no significant difference in mean scores of work value "economic returns" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 0.008 was statistically insignificant at 0.05 level of significance. Therefore, the null hypothesis was retained. This means that the selected tenth-grade Thai girls in Bangkok and

Chiangmai did not differ in terms of the work value "economic returns".

Ho (14) There is no significant difference in mean scores of work value "altruism" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.  
The F statistic 6.210 was statistically significant at 0.05 level of significance. Therefore, the null hypothesis was rejected. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai differed in terms of the work value "altruism".

Ho (15) There is no significant difference in mean scores of work value "intellectual stimulation" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand.

The F statistic 5.590 was statistically significant at 0.05 level of significance. Therefore, the null hypothesis was rejected. This means that the selected tenth-grade Thai girls in Bangkok and Chiangmai differed in terms of the work value "intellectual stimulation".

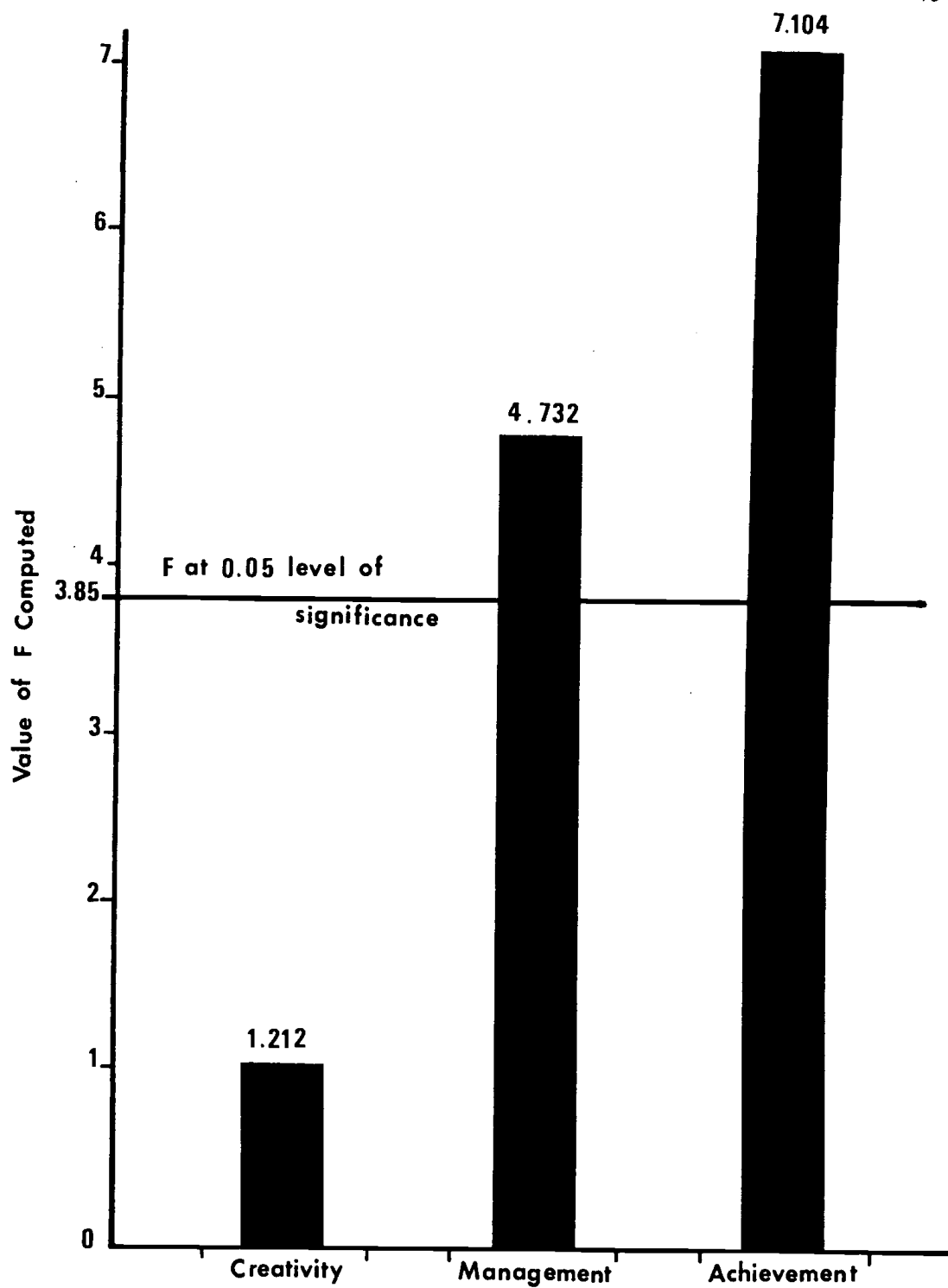


Figure 1. Histogram of the F Values Computed for 15 Hypotheses

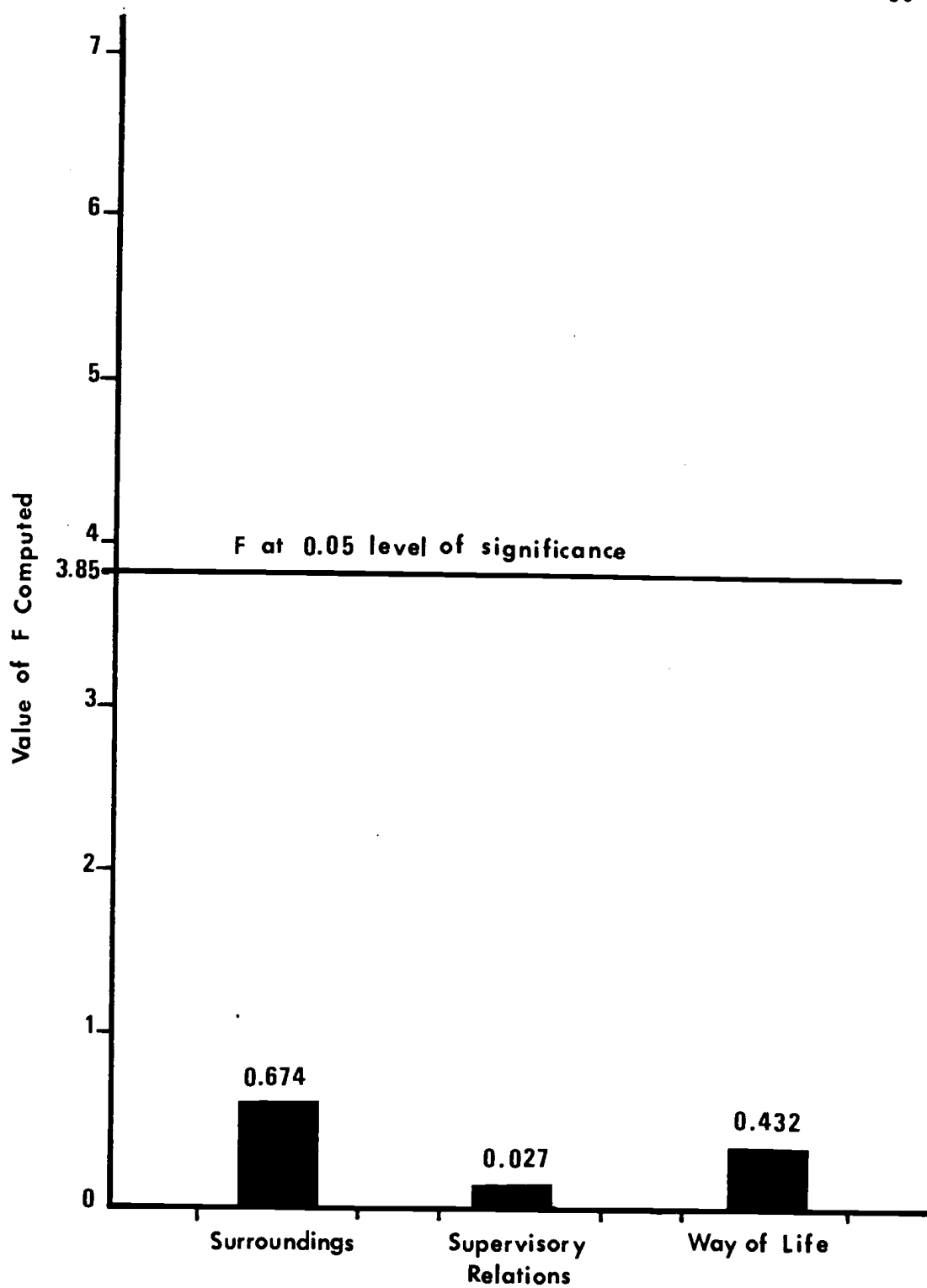


Figure 1. (continued)

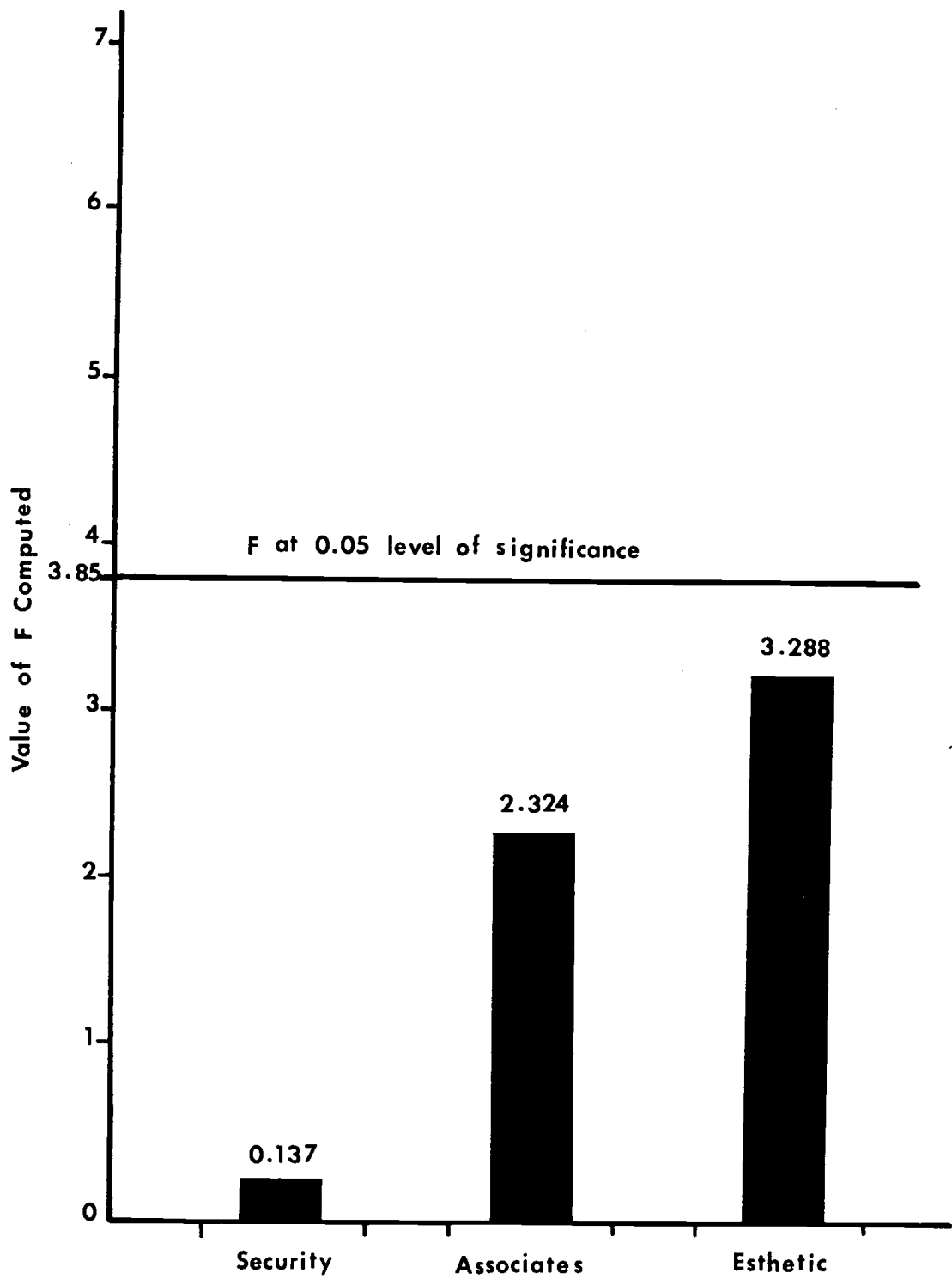


Figure 1 (continued )

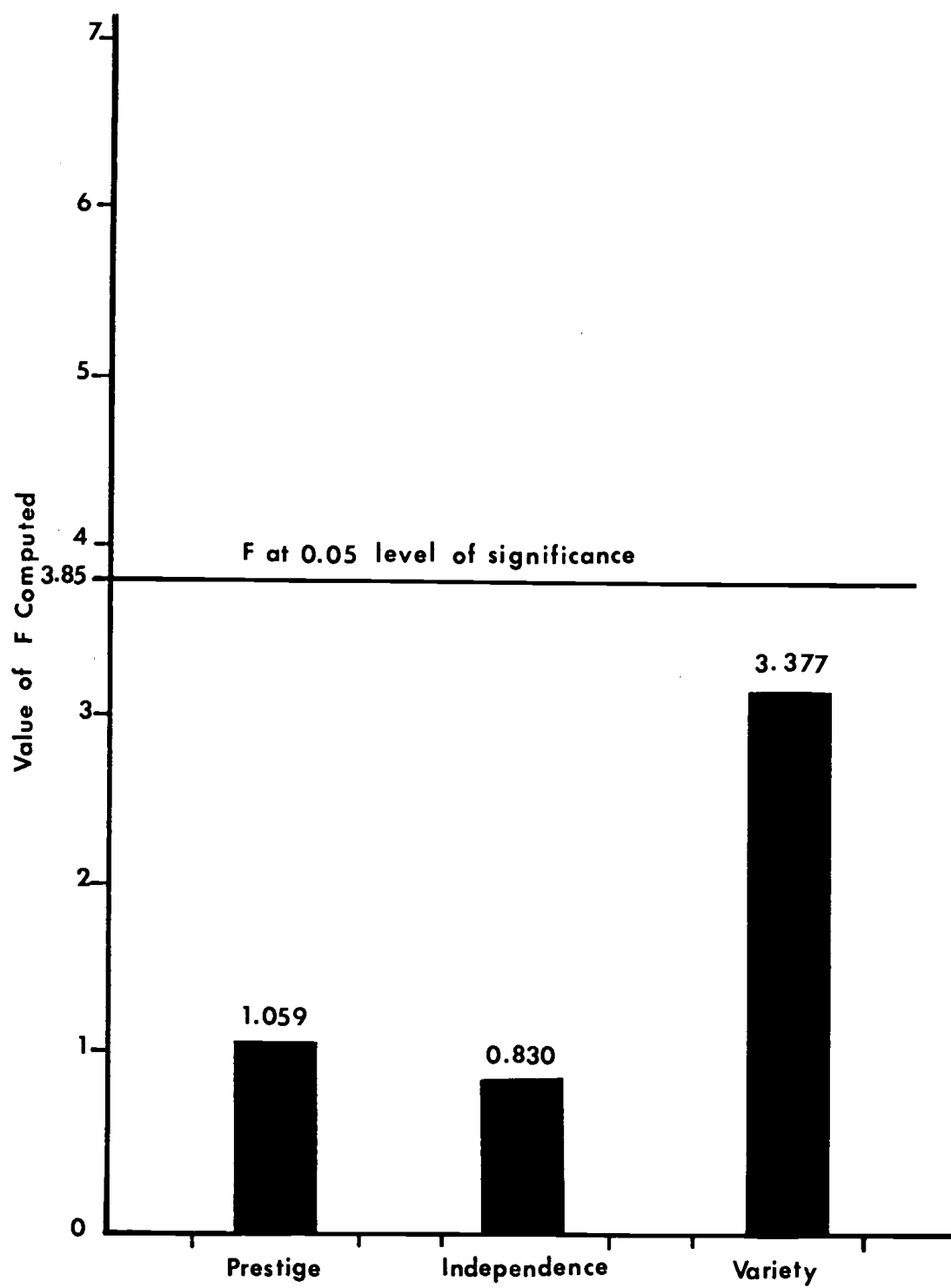


Figure 1 (continued)

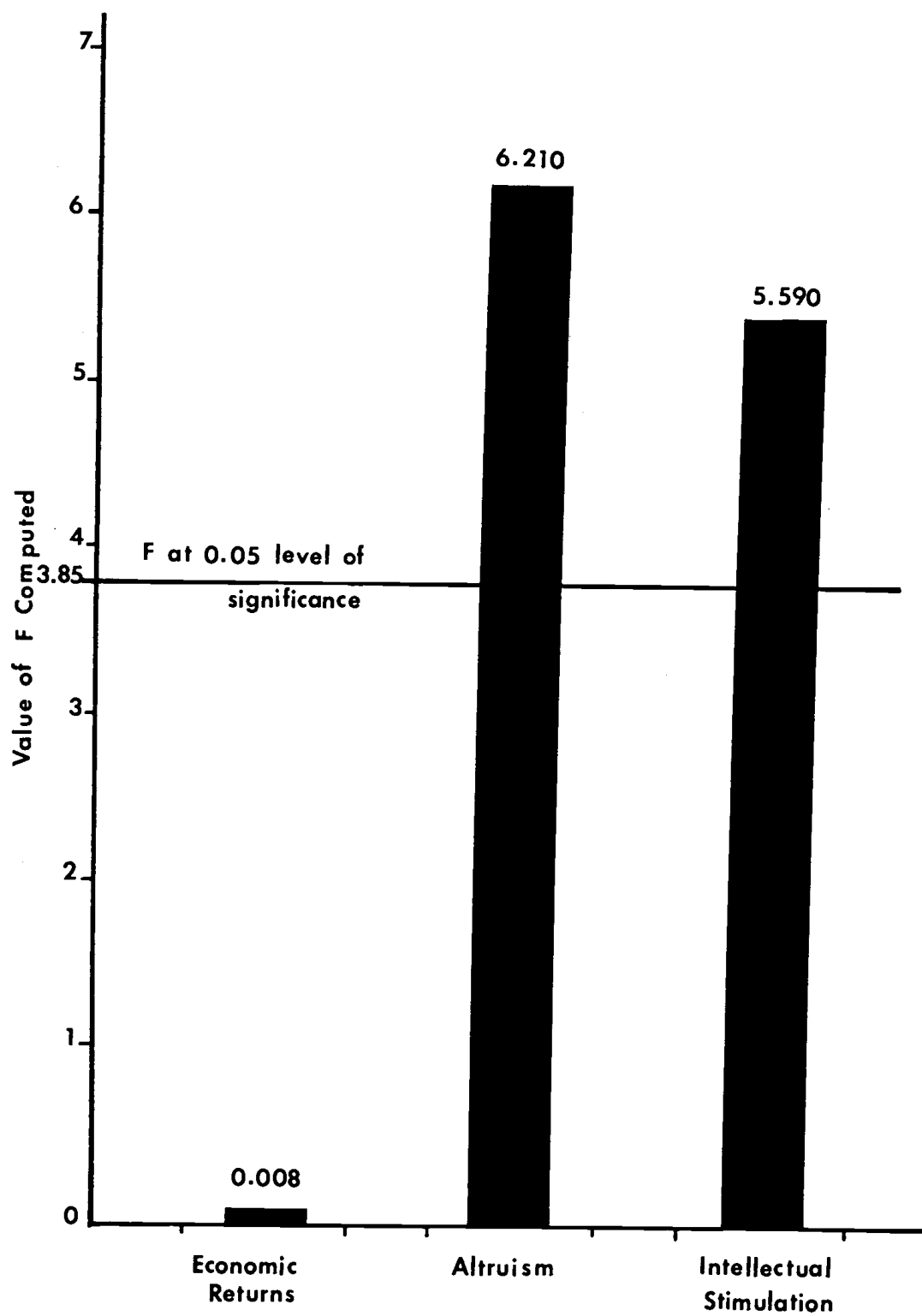


Figure 1 (continued)

### Confidence Intervals

#### The Estimated Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok and Chiangmai ( $\mu_B$ and $\mu_C$ )

The estimated work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai for each work value scale were computed. The results are summarized in Table 11, and in Figure 2, and 3.

The results are discussed in terms of the impact on each work value scale.



Table 11. Summary of The Range of Estimated Work Value Mean Scores for All Tenth-Grade Thai Girls in Bangkok and Chiangmai, Thailand at 0.05 Level of Significance

Scale	Sample Means ( $\bar{X}_B$ )	Bangkok		Sample Means ( $\bar{X}_C$ )	Chiangmai	
		Population Means	Parameter Means ( $\mu_B$ )		Population Means	Parameter Means ( $\mu_C$ )
(1) Creativity	12.2126	11.9897 - 12.4355		12.3821	10.0782 - 12.4858	
(2) Management	9.3465	9.1280 - 9.5650		9.6846	9.4726 - 9.8970	
(3) Achievement	12.3622	12.1752 - 12.5491		12.7205	12.5349 - 12.9061	
(4) Surroundings	9.9659	9.7442 - 10.1876		10.0974	9.8752 - 10.3196	
(5) Supervisory Relations	11.6955	11.6897 - 11.9761		11.7282	11.4544 - 12.0020	
(6) Way of Life	11.1575	10.9318 - 11.3832		11.2641	11.0403 - 11.4878	
(7) Security	10.7008	10.4416 - 10.9592		10.7692	10.5153 - 11.0924	
(8) Associates	12.5039	12.3227 - 12.6851		12.2923	12.0898 - 12.4948	
(9) Esthetic	9.6588	9.4181 - 9.8995		9.9718	9.7340 - 10.2096	
(10) Prestige	10.9659	10.7091 - 11.2227		10.7821	10.5437 - 11.0205	
(11) Independence	11.2283	11.0277 - 11.4289		11.1000	10.9102 - 11.2898	
(12) Variety	9.2205	8.9849 - 9.4561		9.5256	9.3008 - 9.7504	
(13) Economic Returns	12.2520	12.0409 - 12.4633		12.2385	12.0239 - 12.4529	
(14) Altruism	11.2388	10.9884 - 11.4892		11.6744	11.4403 - 11.9084	
(15) Intellectual Stimulation	11.3622	11.1496 - 11.5748		11.7026	11.5169 - 11.8883	

Scale 1 "Creativity". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.9897 through 12.4355, or

$$11.9897 \leq \mu_B \leq 12.4355$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 11.9897 and 12.4355.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 10.0782 through 12.4858, or

$$10.0782 \leq \mu_C \leq 12.4858$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 10.0782 and 12.4858.

Scale 2 "Management". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 9.1280 through 9.5650, or

$$9.1280 \leq \mu_B \leq 9.5650$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 9.1280 and 9.5650.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 9.4726 through 9.8970, or

$$9.4726 \leq \mu_C \leq 9.8970$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 9.4726 and 9.8970.

Scale 3 "Achievement". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 12.1752 through 12.5491, or

$$12.1752 \leq \mu_B \leq 12.5491$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 12,1752 and 12.5491.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 12.5349 through 12.9061, or

$$12.5349 \leq \mu_C \leq 12.9061$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth grade Thai girls in Chiangmai will be yielded between 12.5349 and 12.9061.

Scale 4 "Surroundings". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 9.7442 through 10.1876, or

$$9.7442 \leq \mu_B \leq 10.1876$$

This indicates that 95 times out of 100, if a similar statistical

process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 9.7442 and 10.1876.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 9.8752 through 10.3196, or

$$9.8752 \leq \mu_c \leq 10.3196$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 9.8752 and 10.3196.

Scale 5 "Supervisory Relations". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.6897 through 11.9761, or

$$11.6897 \leq \mu_B \leq 11.9761$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 11.6897 and 11.9761.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 11.4544 through 12.0020, or

$$11.4544 \leq \mu_c \leq 12.0020$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 11.4544 and 12.0020.

Scale 6 "Way of Life". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.9318 through 11.3832, or

$$10.9318 \leq \mu_B \leq 11.3832$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 10.9318 and 11.3832.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 11.0403 through 11.4878, or

$$11.0403 \leq \mu_C \leq 11.4878$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 11.0403 and 11.4878.

Scale 7 "Security". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.4416 through 10.9592, or

$$10.4416 \leq \mu_B \leq 10.9592$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 10.4416 and 10.9592.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 10.5153 through 11.0924, or

$$10.5153 \leq \mu_c \leq 11.0924$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 10.5153 and 11.0924.

Scale 8 "Associates". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 12.3227 through 12.6851, or

$$12.3227 \leq \mu_B \leq 12.6851$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 12.3227 and 12.6851.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 12.0898 through 12.4948, or

$$12.0898 \leq \mu_c \leq 12.4948$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 12.0898 and 12.4948.

Scale of "Esthetic". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 9.4181 through 9.8995, or

$$9.4181 \leq \mu_B \leq 9.8995$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 9.4181 and 9.8995.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 9.7340 through 10.2096, or

$$9.7340 \leq \mu_C \leq 10.2096$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 9.7340 and 10.2096.

Scale 10 "Prestige". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.7091 through 11.2227, or

$$10.7091 \leq \mu_B \leq 11.2227$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 10.7091 and 11.2227.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 10.5437 through 11.0205, or

$$10.5437 \leq \mu_c \leq 11.0205$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 10.5437 and 11.0205.

Scale 11 "Independence". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.0277 through 11.4289, or

$$11.0277 \leq \mu_B \leq 11.4289$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 11.0277 and 11.4289.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 10.9102 through 11.2898, or

$$10.9102 \leq \mu_c \leq 11.2898$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 10.9102 and 11.2898.



Scale 12 "Variety". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 8.9849 through 9.4561, or

$$8.9849 \leq \mu_B \leq 9.4561$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 8.9849 and 9.4561.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 9.3008 through 9.7504, or

$$9.3008 \leq \mu_C \leq 9.7504$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 9.3008 and 9.7504.

Scale 13 "Economic Returns". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 12.0409 through 12.4633, or

$$12.0409 \leq \mu_B \leq 12.4633$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 12.0409 and 12.4633.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 12.0239 through 12.4529, or

$$12.0239 \leq \mu_C \leq 12.4529$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 12.0239 and 12.4529.

Scale 14 "Altruism". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.9884 through 11.4892, or

$$10.9884 \leq \mu_B \leq 11.4892$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 10.9884 and 11.4892.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 11.4403 through 11.9084, or

$$11.4403 \leq \mu_C \leq 11.9084$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 11.4403 and 11.9084.

Scale 15 "Intellectual Stimulation". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.1496 through 11.5748, or

$$11.1496 \leq \mu_B \leq 11.5748$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Bangkok will be yielded between 11.1496 and 11.5748.

The estimated work value mean score of all tenth-grade Thai girls in Chiangmai ranged from 11.5169 through 11.8883, or

$$11.5169 \leq \mu_C \leq 11.8883$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the work value mean score of all tenth-grade Thai girls in Chiangmai will be yielded between 11.5169 through 11.8883.

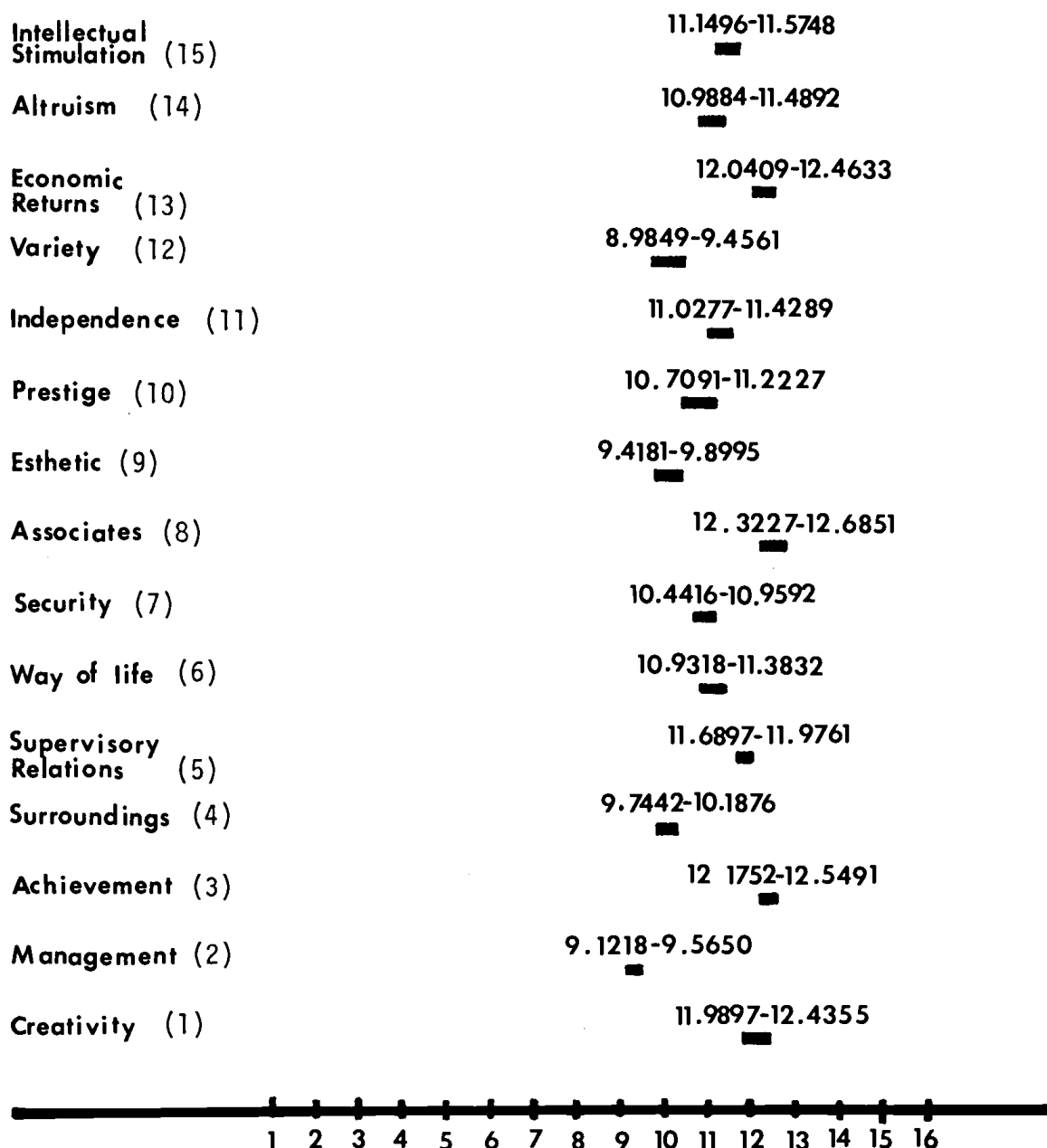


Figure 2. Graph of the Estimated Range Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok

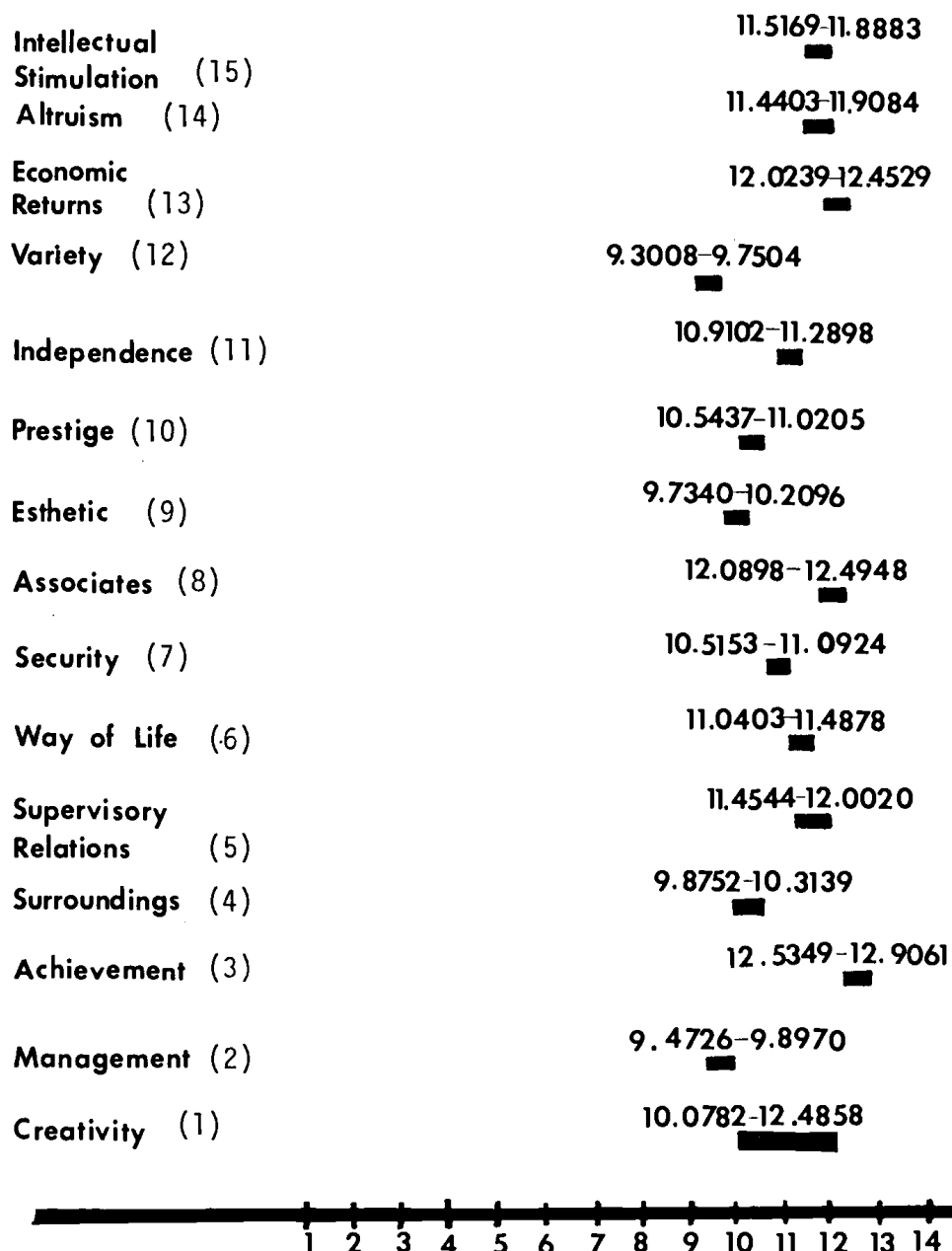


Figure 3. Graph of the Estimated Range Work Value Mean Scores of All Tenth - Grade Thai Girls in Chiangmai

The Estimated Differences Between Work Value Mean Scores of  
All Tenth-Grade Thai Girls in Bangkok and Chiangmai ( $\mu_B - \mu_C$ )

The estimated differences between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai were computed and compared. The results are summarized in Table 12, and in Figure 4, and are discussed in detail in the following sections.

Table 12. Summary of the Range of Estimated Differences Between Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok and All Those in Chiangmai at 0.05 Level of Significance

Scale	Differences of Sample Mean ( $\bar{X}_B - \bar{X}_C$ )	Estimated Differences of Population Parameter Means ( $\mu_B - \mu_C$ )
(1) Creativity	0.1695	$-0.4715 \leq \mu_B - \mu_C \leq 0.1325$
(2) Management	-0.3381	$-0.6429 \leq \mu_B - \mu_C \leq -0.0333$
(3) Achievement	-0.3583	$-0.6221 \leq \mu_B - \mu_C \leq -0.0945$
(4) Surroundings	-0.1315	$-0.4457 \leq \mu_B - \mu_C \leq 0.1827$
(5) Supervisory Relations	-0.0327	$-0.4227 \leq \mu_B - \mu_C \leq 0.3573$
(6) Way of Life	-0.1066	$-0.4247 \leq \mu_B - \mu_C \leq 0.2115$
(7) Security	-0.0684	$-0.3865 \leq \mu_B - \mu_C \leq 0.2497$
(8) Associates	0.2116	$0.0608 \leq \mu_B - \mu_C \leq 0.4840$
(9) Esthetic	-0.3128	$-0.6515 \leq \mu_B - \mu_C \leq 0.0259$
(10) Prestige	0.1838	$-0.1666 \leq \mu_B - \mu_C \leq 0.5342$
(11) Independence	0.1283	$-0.1481 \leq \mu_B - \mu_C \leq 0.4067$
(12) Variety	0.3051	$-0.6309 \leq \mu_B - \mu_C \leq 0.0749$
(13) Economic Returns	0.0135	$-0.0328 \leq \mu_B - \mu_C \leq 0.0599$
(14) Altruism	-0.4356	$-0.7785 \leq \mu_B - \mu_C \leq 0.0927$
(15) Intellectual Stimulation	-0.3404	$-0.6228 \leq \mu_B - \mu_C \leq 0.0579$

Scale 1 "Creativity". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.4715 through 0.1325, or

$$-0.4715 \leq \mu_B - \mu_C \leq 0.1325$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.4715 and 0.1325

Scale 2 "Management". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6429 through -0.0333, or

$$-0.6429 \leq \mu_B - \mu_C \leq -0.0333$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.6429 and -0.0333.

Scale 3 "Achievement". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6221 through -0.0945, or

$$-0.6221 \leq \mu_B - \mu_C \leq -0.0945$$



This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.6221 and -0.0945.

Scale 4 "Surroundings". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.4457 through 0.1827, or

$$-0.4457 \leq \mu_B - \mu_C \leq 0.1827$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.4457 and 0.1827.

Scale 5 "Supervisory Relations". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.4227 through 0.3573, or

$$-0.4227 \leq \mu_B - \mu_C \leq 0.3573$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.4227 and 0.3573.

Scale 6 "Way of Life". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.4247 through 0.2115, or

$$-0.4247 \leq \mu_B - \mu_C \leq 0.2115$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.4247 and 0.2115.

Scale 7 "Security". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.3865 through 0.2497, or

$$-0.3865 \leq \mu_B - \mu_C \leq 0.2497$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value means scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.3865 and 0.2497.

Scale 8 "Associates". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from 0.0608 through 0.4840, or

$$0.0608 \leq \mu_B - \mu_C \leq 0.4840$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between 0.0608 and 0.4840.

Scale 9 "Esthetic". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6515 through 0.0259, or

$$-0.6515 \leq \mu_B - \mu_C \leq 0.0259$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.6515 and 0.0259.

Scale 10 "Prestige". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.1666 through 0.5342, or

$$-0.1666 \leq \mu_B - \mu_C \leq 0.5342$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.1666 and 0.5342.

Scale 11 "Independence". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.1481 through 0.4067, or

$$-0.1481 \leq \mu_B - \mu_C \leq 0.4067$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.1481 and 0.4067.

Scale 12 "Variety". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6309 through 0.0749, or

$$-0.6309 \leq \mu_B - \mu_C \leq 0.0749$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade girls in Bangkok and all those in Chiangmai will fall between -0.6309 and 0.0749.

Scale 13 "Economic Returns". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.0328 through 0.0599, or

$$-0.0328 \leq \mu_B - \mu_C \leq 0.0599$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.0328 and 0.0599.

Scale 14 "Altruism". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.7785 through 0.0927, or

$$-0.7785 \leq \mu_B - \mu_C \leq 0.0927$$

This indicates that 95 times out of 100, if a similar statistical process is carried out, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.7785 and 0.0927.

Scale 15 "Intellectual Stimulation". The estimated difference between work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6228 through 0.0579, or

$$-0.6228 \leq \mu_B - \mu_C \leq 0.0579$$

This indicates that 95 times out of 100, the difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai will fall between -0.6228 and 0.0579.

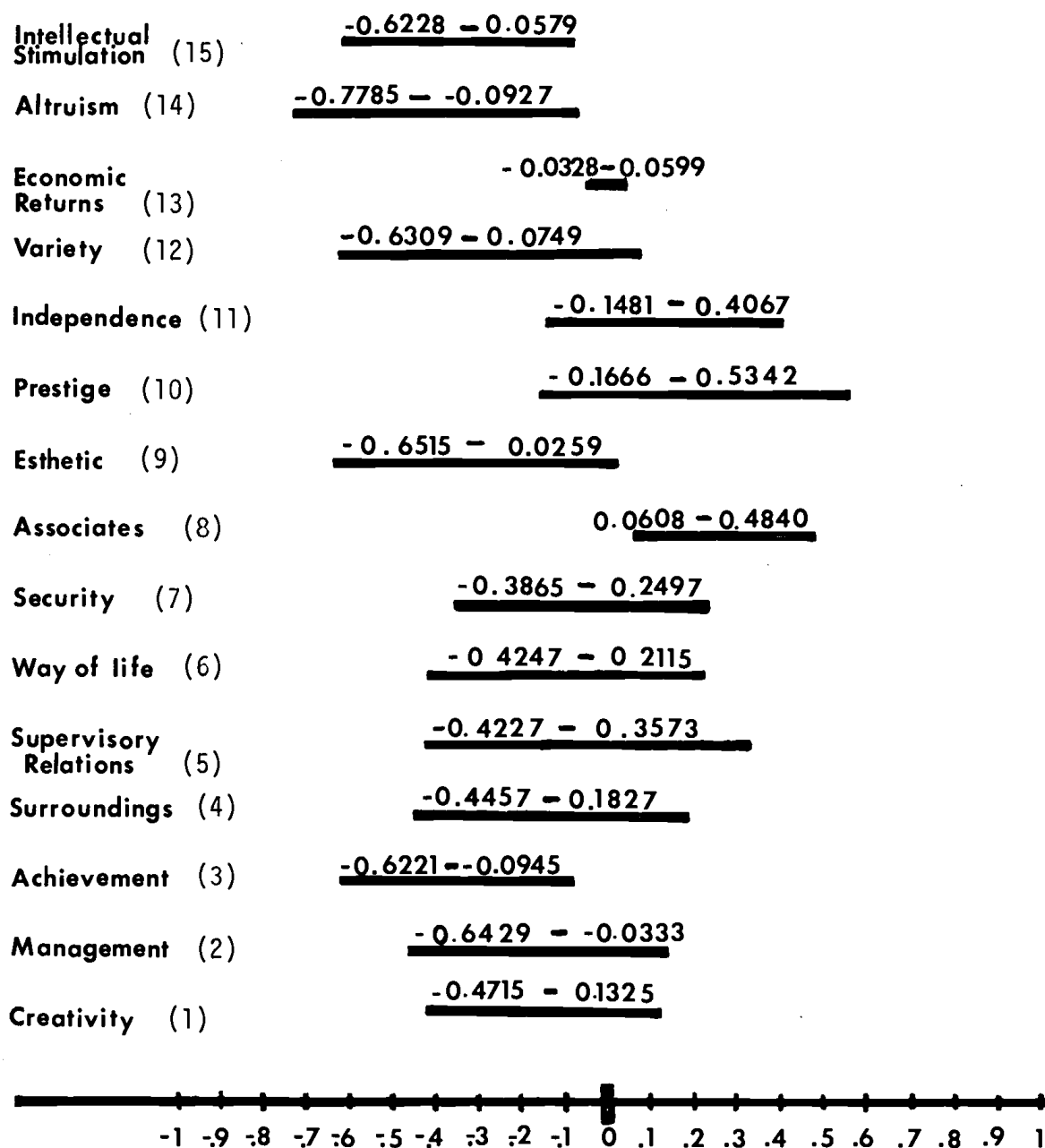


Figure 4. Graph of the Estimated Differences of Work Value Mean Scores of All Tenth-Grade Thai Girls in Bangkok and All Those in Chiangmai

## CHAPTER V

SUMMARY, CONCLUSIONS AND DISCUSSION,  
IMPLICATIONS AND RECOMMENDATIONSSummary

The purpose of the study was to determine and compare the work values of tenth-grade Thai girls in Bangkok and Chiangmai, Thailand, using statistical techniques; thereby providing the foundation for a more systematic approach to career counseling and curriculum planning in Thai high schools.

Procedures

The WVI was selected as the research instrument together with a personal questionnaire designed to obtain demographic data. Both were translated in Thai and submitted to Thai educational experts for review. The five-point Likert-type scale was used to solicit the selected tenth-grade Thai girls' views toward work values in the WVI. Names of 300 tenth-grade Thai girls from public schools and 150 tenth-grade Thai girls from private schools in each city were randomly selected as the sample population, using the stratified sampling method. The two research instruments were administered to the sample population during January and February 1980, resulting in a return of 771 completed questionnaires, or 85.67 percent. Of those returned, 381 were from Bangkok and 390 from Chiangmai.

### Data Analysis

The information from the demographic data were compiled into tables in Chapter IV. The 15 null hypotheses in the study were tested by the one-way analysis of variance, fixed design and unequal size matrix. The F statistic at 0.05 level of significance was used to analyze and compare the difference between work value mean scores of the selected tenth-grade Thai girls in Bangkok and Chiangmai for each hypothesis. The value of t- test at 0.05 level of significance was used to determine and compare the estimated work value mean scores of all tenth-grade girls in Bangkok and all those in Chiangmai.

### Findings

1. The demographic data showed that the majority of the girls in this study were between 14-16 years of age (83.01%); were Thai-Thai (86.25%); were Buddhists (97.41%); had scholastic ability level B and C (73.91%) and came from families with incomes higher than the per capita income (75.10%).

2. The results of the one-way analysis of variance with F statistic can be stated as follows:

Hypothesis 1 was retained. There was no significant difference in mean scores of work value "creativity" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 2 was rejected. There was a significant difference in mean scores of work value "management" between the selected tenth-



grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic (4.736) was significant at the 0.05 level.

Hypothesis 3 was rejected. There was a significant difference in mean scores of work value "achievement" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic (7.104) was significant at 0.05 level.

Hypothesis 4 was retained. There was no significant difference in mean scores of work value "surroundings" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F was not significant at the 0.05 level.

Hypothesis 5 was retained. There was no significant difference in mean scores of work value "supervisory relations" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 6 was retained. There was no significant difference in mean scores of work value "way of life" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 7 was retained. There was no significant difference in mean scores of work value "security" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 8 was retained. There was no significant difference in mean scores of work value "associates" between the selected tenth-

grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 9 was retained. There was no significant difference in mean scores of work value "esthetic" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 10 was retained. There was no significant difference in mean scores of work value "prestige" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 11 was retained. There was no significant difference in mean scores of work value "independence" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 12 was retained. There was no significant difference in mean scores of work value "variety" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 13 was retained. There was no significant difference in mean scores of work value "economic returns" between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand. The value of F statistic was not significant at the 0.05 level.

Hypothesis 14 was rejected. There was a significant difference in mean scores of work value "altruism" between the selected tenth-grade Thai girls in Bangkok and Chiangmai. The value of F statistic (6.210) was significant at the 0.05 level.

Hypothesis 15 was rejected. There was a significant difference in mean scores of work value "intellectual stimulation" between the selected tenth-grade Thai girls in Bangkok and Chiangmai. The value of F statistic (5.590) was significant at the 0.05 level.

3. The estimated work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai can be concluded as follows:

Scale 1 "Creativity". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.9897 through 12.4355 whereas the estimated work value mean score of all those in Chiangmai ranged from 10.0782 through 12.4858.

Scale 2 "Management". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 9.1280 through 9.5650 whereas the estimated work value mean score of all those in Chiangmai ranged from 9.4726 through 9.8970.

Scale 3 "Achievement". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 12.1572 through 12.5491 whereas the estimated work value mean score of all those in Chiangmai ranged from 12.5349 through 12.9061.

Scale 4 "Surroundings". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 9.7442 through 10.1876 whereas the estimated work value mean score of all those in Chiangmai ranged from 9.8752 through 10.3196.

Scale 5 "Supervisory Relations". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.6897 through 11.9761 whereas the estimated work value mean score of all those in Chiangmai ranged from 11.4544 through 12.0020.

Scale 6 "Way of Life". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.9318 through 11.3832 whereas the estimated work value mean score of all those in Chiangmai ranged from 11.0403 through 11.4878.

Scale 7 "Security". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.4416 through 10.9592 whereas the estimated work value mean score of all those in Chiangmai ranged from 10.5153 through 11.0924.

Scale 8 "Associates". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 12.3227 through 12.6851 whereas the estimated work value mean score of all those in Chiangmai ranged from 12.0898 through 12.4948.

Scale 9 "Esthetic". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 9.4181 through 9.8995 whereas the estimated work value mean score of all those in Chiangmai ranged from 9.7340 through 10.2096.

Scale 10 "Prestige". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.7091 through 11.2227 whereas the estimated work value mean score of all those in Chiangmai ranged from 10.5437 through 11.0205.

Scale 11 "Independence". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.0277 through 11.4289 whereas the estimated work value mean score of all those in Chiangmai ranged from 10.9102 through 11.2898.

Scale 12 "Variety". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 8.9849 through 9.4561 whereas the estimated work value mean score of all those in Chiangmai ranged from 9.3008 through 9.7504.

Scale 13 "Economic Returns". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 12.0409 through 12.4633 whereas the estimated work value mean score of all those in Chiangmai ranged from 12.0239 through 12.4529.

Scale 14 "Altruism". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 10.9884 through 11.4892 whereas the estimated work value mean score of all those in Chiangmai ranged from 11.4403 through 11.9084.

Scale 15 "Intellectual Stimulation". The estimated work value mean score of all tenth-grade Thai girls in Bangkok ranged from 11.1496 through 11.5748 whereas the estimated work value mean score of all those in Chiangmai ranged from 11.5169 through 11.8883.

4. The estimated differences in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai can be summarized as follows:

Scale 1 "Creativity". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.1325 through 0.4715.

Scale 2 "Management". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6429 through -0.0333.

Scale 3 "Achievement". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6221 through -0.0945.

Scale 4 "Surroundings". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.4457 through 0.1827.

Scale 5 "Supervisory Relations". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from 0.4227 through 0.3573.

Scale 6 "Way of Life". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.4247 through 0.2115.

Scale 7 "Security". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.3865 through 0.2497.

Scale 8 "Associates". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from 0.0608 through 0.4840.

Scale 9 "Esthetic". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and Chiangmai ranged from -0.6515 through 0.0259.

Scale 10 "Prestige". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.1666 through 0.5342.

Scale 11 "Independence". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.1481 through 0.4067.

Scale 12 "Variety". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6309 through 0.0749.

Scale 13 "Economic Returns". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.0328 through 0.0599.

Scale 14 "Altruism". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.7785 through -0.0927.

Scale 15 "Intellectual Stimulation". The estimated difference in work value mean scores of all tenth-grade Thai girls in Bangkok and all those in Chiangmai ranged from -0.6228 through -0.0579.

### Conclusions and Discussion

Based on the findings of this study, one may conclude that the tenth-grade Thai girls in Bangkok and Chiangmai, Thailand, seek to fulfill similar work values. A significant difference exists in only four hypotheses out of 15 tested. Specifically, the results from this study suggest the following conclusions and discussion:

1. Bangkok girls and Chiangmai girls showed significant differences in the work values "management", "achievement", "altruism", and "intellectual stimulation", which were designed and developed by Super (1970) in the Work Values Inventory. Consequently, this

indicates differences between the two groups of Thai girls only in the four work values. Moreover, these four work values and the other 11 in the WVI were designed to test the work values of American students, which might or might not adequately test the work values of Thai students. Therefore, the results of this study can be useful in planning the curriculum, educational program and activities for the tenth-grade Thai girls in Bangkok and Chiangmai if the inventory is appropriate for Thai students.

2. John T. Dailey (1968) tested the work values of 777 tenth-grade American girls around the United States by using Super's WVI and found that the girls placed high values (9.10 through 13.29) on the 15 work values which were similar to the result in the present study (9.22 through 12.72). However, these two results do not necessarily lead to the conclusion that tenth-grade Thai girls and American girls have similar work values. Daily's study was done in 1968 whereas this study was done 1979. Furthermore, Dailey tested tenth-grade American girls from around the country, whereas this study was limited to two cities in Thailand.

3. All of the selected tenth-grade Thai girls in Bangkok and Chiangmai gave high scores to each scale in the WVI. The scores of all scales ranged from 9.2205 through 12.7205. This results indicates that all of the girls thought each work value in the WVI was important for them.

4. The selected tenth-grade Thai girls in both cities placed greatest importance on work value related to "creativity" (12.2126



and 12.3821), "associates" (12.5039 and 12.2923), and "economic returns" (12.2520 and 12.2385). This indicates that the girls thought these three work values were the important for them when they worked.

5. The tenth-grade Thai girls in both cities put equal emphasis on work values related to "creativity", "surroundings", "supervisory relations", "way of life", "security", "associates", "esthetic", "prestige", "independence", "variety", and "economic returns".

6. The work value mean scores for the 15 work values do not have high variation (9.2205 through 12.4205), but this variation still indicates that different girls placed different levels of values on the 15 work values. Therefore, individual differences in work values should be of concern to career counselors before guiding students toward future study and career possibilities.

7. The results from the demographic data regarding the family socioeconomic background of the selected tenth-grade Thai girls in this study shows that 75.10% of them came from families which had incomes higher than the average per capita income in Thailand (12.067 bahts or \$603.36). It can be concluded that Thai students, especially Thai girls who reach grade ten, usually come from high income families.

8. The maximum range of estimated work value mean scores of all tenth-grade Thai girls in Bangkok ( $\mu_B$ ) and all those in Chiangmai ( $\mu_C$ ) was the range of estimated work value mean scores of all tenth-grade Thai girls in Chiangmai for scale "security" (10.5153 through 11.9240); whereas the minimum range was the range of estimated work value mean

scores of all tenth-grade Thai girls in Chiangmai for scale "independence" (10.9102 and 11.2896). This result shows that the variation of the range of estimated work value mean scores of all tenth-grade Thai girls in Chiangmai for scale "security" is the highest, and that the variation of the estimated work value mean scores of the same group of girls for scale "independence" is the lowest in the 15 scales of the WVI.

9. The range of estimated differences between work value mean scores of all tenth-grade Thai girls in Bangkok and Chiangmai ( $\mu_B - \mu_C$ ) started from below zero through above zero for the following scales: "creativity", "surroundings", "supervisory relations", "way of life", "security", "esthetic", "prestige", "independence", "variety", "economic returns", "altruism", and "intellectual stimulation". This indicates that, if a similar statistical process is carried out, 95 times out of 100, the work value mean scores of all tenth-grade Thai girls in Bangkok may be higher or lower than work value mean scores of all tenth-grade Thai girls in Chiangmai for the above scales. The range of estimated differences between work value mean scores of all tenth-grade Thai girls in Bangkok and Chiangmai ( $\mu_B - \mu_C$ ) for scales "management" and "achievement" ranged below zero only. This indicates that, if a similar statistical process is carried out, 95 times out of 100, the work value mean scores of all tenth-grade Thai girls in Chiangmai will be higher than the work value mean scores of all tenth-grade Thai girls in Bangkok. Finally, only the range of estimated differences between work value mean scores of all tenth-grade Thai girls in Bangkok

and Chiangmai ( $\mu_B - \mu_C$ ) for scale "associates" ranged above zero. This indicates that, if a similar statistical process is carried out, 95 times out of 100, the work value mean scores of all tenth-grade Thai girls in Bangkok will be higher than the work value mean scores of all tenth-grade Thai girls in Chiangmai.

Although the results in this study show the similarity of work values between the selected tenth-grade Thai girls in Bangkok and Chiangmai, Thailand, the differences in four hypotheses lead to the following conclusions and discussion:

1. Bangkok girls placed lower value on the kind of work that enables one to contribute to the welfare of others "altruism" than did Chiangmai girls. This may indicate an attitude of people in the larger city.
2. Bangkok girls placed lower value on the kind of work that permits one to plan and lay out work for others to do "management" than did Chiangmai girls. The result points out that Bangkok girls prefer to have more freedom to plan and do their work than Chiangmai girls, which also indicates a characteristic of people in the larger city.
3. Bangkok girls placed lower value on the kind of work that gives one a feeling of accomplishment in doing jobs well "achievement" than did Chiangmai girls. Super (1970) designed the achievement value to assess a task orientation, or a liking for work with visible, tangible results. Thus, this result may indicate that Bangkok girls desire more intangible results from their work than do Chiangmai

girls, which suggests a further study on how and why Bangkok girls are more intangible in orientation to work than are Chiangmai girls.

4. Bangkok girls placed lower value on the kind of work that provides an opportunity for independent thinking "intellectual stimulation" than Chiangmai girls. This result seems to conflict with the result of the work value "management". This study can not find the reason for the conflict. Thus, it may be useful to Thai education for a further study on the reason for this conflict, using the present study to as a basic study.

### Implications

Implications of the significant differences found for the work values "management", "achievement", "altruism", and "intellectual stimulation" suggest the need for the development of other researchable questions before planning curriculum, educational programs, and activities for tenth-grade Thai girls in Bangkok and Chiangmai. Other implications are discussed in the following sections.

### The Sampling Method

As noted in Chapter III, the sampling method in this study may have contributed to the lack of significant statistical differences. Even though the stratified sampling method was used and all instructions were provided in writing, the investigator did not administer the questionnaires in person. Consequently, it is possible that some errors occurred in sampling which the investigator could not know or control. In future investigations, an investigator should do the actual sampling.

Moreover, the range of work value scores assigned by all of the girls in all of the schools for all of the work values was very narrow (9-12 out of 1-15). This suggests there may have been a misunderstanding in the instructions. The administration of questionnaires was controlled by the principals of participating schools. Thus, many different people administered the questionnaires. Since the results were uniform, any misunderstanding would have arisen from the written instructions.

These instructions, printed on the WVI itself, are as follows:

The statements below represent values which people consider important in their work. These are satisfactions which people often seek in their jobs or as a result of their jobs. They are not all considered equally important; some are very important to some people but of little importance to others. Read each statement carefully and indicate how important it is for you (Work Values Inventory, 1969, p. 3).

Thus, the students were clearly instructed to record how important each item was to them, and it can only be assumed that the students truly felt that all of the work values were important.

#### The Instrumentation

The WVI by Super (1970) was selected for use in this study to measure work values of the selected tenth-grade Thai girls. However, the WVI was developed and designed to use for American students, and some statements in the WVI may be effective for American students but ineffective for Thai students. Furthermore, the WVI was translated for this study. The translation may make the WVI different from the original. Either of these differences may have contributed to the

lack of significant findings in the study. For the future investigation of work values of Thai students, the instrument used should be designed and developed specifically for Thais.

Moreover, the reliability of the demographic data in this study should be discussed. Some information derived from the demographic data in this study may not be reliable. For example, the scholastic ability and family socioeconomic background of the subjects were determined by the subjects. Some of the subjects may have not told the truth about their scholastic ability, or may have not known exactly what their family income was.

### Recommendations

In the view of the findings of this study, ten recommendations are made for further study, and for consideration by the Ministry of Education, Thai educators and Thai high school counselors. These recommendations are as follows:

1. A questionnaire designed to test work values of Thai students should be developed in Thai for Thai students. A questionnaire designed for American students which is translated from English into the Thai language may not adequately test the work values of Thai students.

2. A follow-up study to determine the influence of age, sex, family socioeconomic background, scholastic ability, race or ethnic background, and religion on work values of Thai high school students should be considered.

3. The work values of each student must be considered by high school and career counselors in order to better help the student plan future study and career possibilities.

4. An examination of differences in career development and career decision making should be made between those students who are tested for work values and counseled accordingly, and those students who are not tested.

5. A longitudinal study should be conducted to determine the stability of work values of students between elementary grade and post-secondary students.

6. Additional research should be developed to compare and determine work values of students in other parts of Thailand, such as the South and Northeastern parts.

7. Replication of this study with other grade levels of students should be conducted.

8. Further studies about the change which occurs among Thai women, such as the change in values, attitudes, life styles and employment status, should be done.

9. Additional investigation also should be conducted to determine reasons why the result of the work value "management" conflicts with the result of the work value "intellectual stimulation" between the selected tenth-grade Thai girls in Bangkok and Chiangmai in the present study.

10. Further investigation should be conducted to determine how and why Bangkok tenth-grade girls are more intangible in orientation to work than are Chiangmai girls.



## BIBLIOGRAPHY

1. Basche, James R. Thailand: Land of the Free. New York: Taplinger Pub. Co., 1971.
2. Benedict, Ruth. Thai Culture and Behavior. New York: Department of East Study, Cornell University, 1963.
3. Blanchard, Wendell. Thailand. New Haven, Connecticut: HRAF Press, 1958.
4. Blofeld, John. Bangkok. Amsterdam: Time-Life International B.V., 1979.
5. Borow, Henry. Man in a World at Work. Boston: Houghton Mifflin Co., 1964.
6. Center, Richard. "Motivational Aspect of Occupational Stratification." Journal of Social Psychology 28 (November 1948): 187-217.
7. Courtney, Wayne E., and Sedgwick, Larry K. "Use of Analysis of Variance." Corvallis: Oregon State University, 1972.
8. Dailey, John T. "Project Talent". In Work Values Inventory Manual, pp. 12-25. Edited by Donald E. Super. Boston: Houghton-Mifflin, 1970.
9. Davis, Charletta B. "A Study of Rural and Urban Youth: Their Vocational Aspirations." Ph.D. dissertation, University of South Carolina, 1972.
10. Dipboye, W. J., and Anderson, W. F. "The Ordering of Occupational Values by High School Freshmen and Seniors." Personnel and Guidance Journal 38 (October 1959): 121-124.
11. Eyde, L. D. Work Values and Background Factors as Predictors of Women's Desire to Work. Columbus: Ohio State University, 1962.
12. Ginzberg, Eli; Ginzberg, Sol W.; Axelrod, Sidney; and Herma, John. Occupational Choice: An Approach to a General Theory. New York: Columbia University Press, 1951.
13. Goffman, Erving. The Presentation of Self in Everyday Life. New York: Double-day Anchor Books, 1959.
14. Gribbons, Warren D., and Lohnes, Paul R. Emerging Careers. New York: Teacher College Press, Columbia University, 1968.

15. Gribbons, Warren D. and Lohnes, Paul R. "Shifts in Adolescents' Vocational Values." Personnel and Guidance Journal 44 (November 1965): 248-252.
16. Handel, Judith D. Introductory Statistics for Sociology. New Jersey: Prentice-Hall, Inc., 1978.
17. Hillard, A. The Forms of Value. New York: Teacher College Press, Columbia University, 1950.
18. Holland, John L. Making Vocational Choices: A Theory of Careers. New Jersey: Prentice-Hall, 1973.
19. Hollingshead, August B. Elmtown's Youth. New York: John Wiley and Sons, 1949.
20. Hoppock, Robert. "Occupations and Guidance." In Counseling and Guidance in the Twentieth Century, pp. 90-97. Edited by William H. Van Hoose and John Pietrofesa. New York: Houghton Mifflin, 1970.
21. Howell, F. Mobley. "Making Life Plans: Race and Gender in the Formation and Maintenance of Career Decisions." Ph.D. dissertation, Mississippi State University, 1979.
22. Hoyt, Kenneth B.; Evans, Rupert N.; Machin, Edward F.; and Mangum, Gorth L. Career Education: What It Is and How To Do It. Utah: Olympus, Pub. Co., 1974.
23. Humbert, Jack T. "The Work Values of Boy and Girls Urban and Rural High School and Technical Institute Welfare Students in New Mexico." Ph.D. dissertation, University of New Mexico. 1966.
24. Katz, M. Decision and Values. New York: College Entrance Examination Board, 1963.
25. Katzell, Raymond A. "Personal Values, Job Satisfaction and Job Behavior." In Man in a World at Work, pp. 341-363. Edited by Henry Borow. Boston: Houghton Mifflin, 1964.
26. King, Reed L. "A Comparison of Work Values of Emotionally Disturbed Adolescents and Normal Adolescents." Ph.D. dissertation, Oregon State University, 1975.
27. Kinnane, John F., and Bannon, Margaret M. "Perceived Parental Influence and Work Value Orientation." Personnel and Guidance Journal 43 (November 1964): 273-279.
28. Kluckhohn, R. R., and Strodtbeck, E. L. Variations in Value Orientation. Illinois: Ron and Peterson, 1951.

29. Komin, Suntaree. "Value Systems: As Means to Assess the Impact of Modernization." Journal of Development Administration 17 (October 1977): 567-595.
30. Komin, Suntaree. "Some Empirical Evidence of Thai Values and Personality." Journal of Development Administration 18 (April 1978): 271-292.
31. Kuhlen, Raymond G., and Johnson, George N. "Changes in Goals with Increasing Adult Age." Journal of Counseling Psychology 16 (Fall 1952): 1-4.
32. Landon, Kenneth P. Siam in Transition. Illinois: University of Chicago Press, 1939.
33. Lee, Sylvia L.; Ray, Elizabeth M.; Vetter, Louise; Murphy, Lila; and Lethney, Barbara G. High School Senior Girls and the World of Work: Occupational Knowledge, Attitude and Plans. Columbus: Ohio State University, 1971.
34. Luciano, Wilson. "A Comparative Analysis of the Occupational Value of Male High School Seniors in Urban and Rural Areas of Puerto Rico." Ph.D. dissertation, University of New Mexico, 1971.
35. Lybarger, Alvin E. "A Comparison of Job Satisfaction Needs of Selected Rural and Urban Industrial Education Students in the State of Utah." Ph.D. dissertation, Utah State University, 1971.
36. Manggalatthedipani in Pali Language. Thai Edition: (1964).
37. Maples, Mary F. "Relationship Between Work Values and Job Satisfaction Among College Student Personnel Workers." Ph.D. dissertation, Oregon State University, 1977.
38. Maslow, A. H. "A Theory of Human Motivation." Psychological Review 50 (1943): 370-396.
39. Miyahira, Sarah D. "College Women's Career Orientation as Related to Work Values and Background Factors." Ph.D. dissertation, Ohio State University, 1976.
40. Popham, James W., and Sirotnik, Kenneth A. Educational Statistics: Use and Interpretation. New York: Harper and Row, 1973.
41. Risch, Constance, and Reymer, Lawrence. "A Framework for Investigating Career Choice of Women." Vocational Guidance Quarterly 16 (December 1967): 87-92.

42. Roe, Anne, and Siegelman, Marvin. The Origin of Interests. Washington: American Personnel and Guidance Association, 1964.
43. Rokeach, M. The Nature of Human Values. New York: The Free Press, 1973.
44. Rokeach, M. Beliefs, Attitudes and Values: A Theory of Organization and Change. London: Jossey Boss, 1968.
45. Schwarzweller, Harry K. "Values and Occupational Choice" Social Forces 39 (December 1960): 126-135.
46. Schwarzweller, Harry K. "Value Orientation and Educational and Occupational Choice." Rural Sociology 14 (September 1959): 246-256.
47. Sharp, Lauriston; Moore, Frank J.; and Vells, Waller F. Thailand. New Haven, Connecticut: PRAF Press, 1952.
48. Singer, Stanley L., and Stefflre, Buford. "Sex Differences in Job Values and Desired." Personnel and Guidance Journal 32 (April 1954): 483-484.
49. Smith, Harvey H.; Bernier, Donald W.; Bunge, Frederica M; Rintz, Frances, Chadwick; Shinn, Rinn-Sup and Teleki, Suzanne. Area Handbook for Thailand. Washington, D.C.: U.S. Government Printing Office, 1968.
50. Stefflre, Buford. "Current Validity of the Vocational Values Inventory." Journal of Educational Research 52 (May 1959): 339-341.
51. Super, Donald E. "A Theory of Vocational Development." American Psychologist 8 (May 1953): 185-190.
52. Super, Donald E. "Work Value Inventory". Boston: Houghton-Mifflin, 1968.
53. Super, Donald E. "Vocational Development: A Function of Academic and Vocational Decisions." In Education for Tomorrow, pp. 94-118. Edited by Walter M. Lifton. New York: John Wiley and Sons, 1970.
54. Super, Donald E. Work Values Inventory Manual. Boston: Houghton-Mifflin, 1970.
55. Thailand, Mahidol University, Effects of Population on Social and Economic Development. Population Education Project. 1976.
56. Thailand, Ministry of Education. Education in Thailand. 1975.

57. Thailand, Ministry of Education. 1977 Statistical on Academic Stream of Education by Province. 1978.
58. Thailand, Ministry of Education. Educational Statistics. 1978a.
59. Thailand, Ministry of Education. English for Thai Students Book Five, 1979.
60. Thailand, Ministry of Education. Measurement and Evaluation of Education. 1978b.
61. Thailand, Ministry of Education. Thailand National Educational Scheme. 1977.
62. Thailand. Ministry of Interior, Department of Labor. Child Labor. 1976.
63. Thailand, National Economic Social Development Board. Statistics on Population, Manpower and Employment. 1979.
64. Thailand, National Economics Social Development Board. Statistics on Population, Manpower, and Employment. 1980.
65. Thailand, National Statistical Office. Statistical Yearbook (1970-1971).
66. Thailand, Office of University Affairs. Graduates of Bachelor's Degree Classified by Major Area (UNESCO). 1978.
67. "Thai Life." Journal of Social Science, Bangkok: Thomasart University, 1976: 4-15.
68. Thompson, O.E. "Occupational Values of High School Students." Personnel and Guidance Journal 44 (April 1966): 850-853.
69. Tiedeman, David V., and O'Hara, Robert P. Career Development and Adjustment. New York: College Entrance Examination Board, 1963.
70. Tilgher, A. "Work Through the Ages." In Man, Work and Society, pp. 11-24. Edited by S. Nosow and W. Form. New York: Basic Books, 1962.
71. Tolbert, E. L. Counseling for Career Development. Boston: Houghton-Mifflin, 1974.
72. Tremain, June E. "A Comparison of Men and Women Vocational Educator's Present and Expected Levels of Work Satisfaction as Related to Selected Work Value." Ph.D. dissertation, Oregon State University, 1978.

73. Wrenn, Gilbert C. "Human Values and Work in American Life."  
In Man in a World at Work, pp. 24-44. Edited by Henry  
Borow. Boston: Houghton-Mifflin, 1964.
74. Yates, Frank. Sampling Methods for Censuses and Surveys.  
London: Charles Griffin and Company, 1949.
75. Yuprasert, Phongpan. "Work Values: A Comparative Study of  
American and Thai College Freshmen Students." Ph.D.  
dissertation, University of Arizona, 1976.

## APPENDICES

## APPENDIX A

## WORK VALUES INVENTORY

Donald E. Super  
Teachers College, Columbia University

The statements below represent values which people consider important in their work. These are satisfactions which people often seek in their jobs as a result of their jobs. They are not all considered equally important; some are very important to some people but of little importance to others. Read each statement carefully and indicate how important it is for you.

5 means "Very Important"

4 means "Important"

3 means "Moderately Important"

2 means "Of Little Importance"

1 means "Unimportant"

ข้อความข้างล่างต่อไปนี้หมายถึง ค่านิยม ซึ่งถือว่ามีความสำคัญในงานของท่านของบุคคลทั่วไป  
ค่านิยม เป็นความรู้สึกพอใจที่ทุกคนมีหาในการทำงานหรือมีหนึ่งเป็นผลของงาน แต่ค่านิยมเหล่านี้หาได้มี  
ความสำคัญเท่าเทียมไม่ บางคนอาจถือว่าสำคัญมาก แต่อีกหลายคนอาจถือว่าสำคัญน้อย ฉะนั้นขอให้ท่าน  
อ่านข้อความแต่ละข้ออย่างถี่ถ้วนรอบคอบ และให้คะแนนแก่ข้อความสำคัญกับความสำคัญในความเห็นของท่าน

๕ หมายความว่า "สำคัญมาก"

๔ "สำคัญ"

๓ "สำคัญพอสมควร"

๒ "สำคัญน้อยมาก"

๑ "ไม่สำคัญเลย"

(Fill in one oval by each item to show your rating of the statement)

จงกากบาท ตัวเลข ทางขวามือ ความสำคัญของคุณของข้อความนั้น ๆ ที่มีต่อตัวท่าน

1. Work in which you have to keep solving new problems.

งานคือสิ่งที่ท่านต้องแก้ปัญหาใหม่ ๆ อยู่เสมอ

5	4	3	2	1
---	---	---	---	---

2. Work in which you help others.

งานคือสิ่งที่ท่านได้ช่วยเหลือผู้อื่น

5	4	3	2	1
---	---	---	---	---



3. Work in which you can get a raise.  
งานคือสิ่งที่ท่านสามารถได้เลื่อนขั้นและมีรายได้สูงขึ้น
4. Work in which you look forward to changes in your job.  
งานคือสิ่งที่ท่านทำเพื่อหาทางเปลี่ยนแปลงต่อไป
5. Work in which you have freedom in your area.  
งานคือสิ่งที่ท่านมีเสรีภาพในสายวิชาชีพของท่าน
6. Work in which you gain prestige in your field.  
งานคือสิ่งที่ท่านได้มีเกียรติในสายวิชาชีพของท่าน
7. Work in which you need to have artistic ability.  
งานคือสิ่งที่ท่านต้องมีความสามารถทางศิลปะ
8. Work in which you are one of the gang.  
งานคือสิ่งที่ท่านได้เป็นสมาชิกคนหนึ่งของคนๆ
9. Work in which you know your job will last.  
งานคือสิ่งที่ท่านรู้ว่าจะคงอยู่ได้นาน
10. Work in which you can be the kind of person you would like to be.  
งานคือสิ่งที่ท่านสามารถเป็นบุคคลที่ท่านอยากจะเป็น
11. Work in which you have a boss who gives you a square deal.  
งานคือสิ่งที่ท่านมีนายที่ให้ความเป็นธรรมแก่ท่าน
12. Work in which you like the setting in which your job is done.  
งานคือสิ่งที่ท่านชอบแบบแผนในการทำงาน
13. Work in which you get the feeling of having done a good day's work.  
งานคือสิ่งที่ท่านมีความรู้สึกว่าได้ทำงานประจำวันไปอย่างเรียบร้อย
14. Work in which you have authority over others.  
งานคือสิ่งที่ท่านมีอำนาจเหนือผู้อื่น
15. Work in which you try out new ideas and suggestions.  
งานคือสิ่งที่ท่านได้ทดลองแนะนำความคิดและขอเสนอแนะใหม่ ๆ
16. Work in which you create something new.  
งานคือสิ่งที่ท่านสร้างสรรค์สิ่งใหม่ ๆ

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

5	4	3	2	1
---	---	---	---	---

17. Work in which you know by the results when you've done a good job.

งานคือสิ่งที่ท่านทราบผลเมื่อประสบความสำเร็จ

5	4	3	2	1
---	---	---	---	---

18. Work in which you have a boss who is reasonable.

งานคือสิ่งที่ท่านมีนายที่สมเหตุสมผล

5	4	3	2	1
---	---	---	---	---

19. Work in which you are sure of always having a job.

งานคือสิ่งที่ท่านแน่ใจว่าจะมีทำอยู่เสมอ

5	4	3	2	1
---	---	---	---	---

20. Work in which you add beauty to the world.

งานคือสิ่งที่ท่านเพิ่มความสวยงามให้แก่ชาวโลก

5	4	3	2	1
---	---	---	---	---

21. Work in which you make your own decisions.

งานคือสิ่งที่ท่านกล้าตัดสินใจด้วยตนเอง

5	4	3	2	1
---	---	---	---	---

22. Work in which you have pay increases that keep up with the cost of living.

งานคือสิ่งที่ท่านมีรายได้เพิ่มขึ้นจนเที่ยงพอกับค่าครองชีพ

5	4	3	2	1
---	---	---	---	---

23. Work in which you are mentally challenged.

งานคือสิ่งที่ท่านถูกท้าทายให้ขบขัน

5	4	3	2	1
---	---	---	---	---

24. Work in which you use leadership abilities.

งานคือสิ่งที่ท่านใช้ความสามารถในการเป็นผู้นำ

5	4	3	2	1
---	---	---	---	---

25. Work in which you have adequate lounge, toilet and other facilities.

งานคือสิ่งที่ท่านมีห้องนั่งเล่น, ห้องน้ำ และสิ่งอำนวยความสะดวกอย่างพอเพียง

5	4	3	2	1
---	---	---	---	---

26. Work in which you have a way of life, while not on the job, you like.

งานคือสิ่งที่ท่านได้ใช้ชีวิตยามว่างจากการปฏิบัติงานอย่างสนใจ

5	4	3	2	1
---	---	---	---	---

27. Work in which you form friendship with your fellow employees.

งานคือสิ่งที่ท่านได้สร้างมิตรภาพกับเพื่อนร่วมงาน

5	4	3	2	1
---	---	---	---	---

28. Work in which you know that others consider your work.

งานคือสิ่งที่ท่านทราบว่าคนอื่นเขาก็เห็นว่าเป็นงานของท่านสำคัญ

5	4	3	2	1
---	---	---	---	---

29. Work in which you do not do the same thing all the time.

งานคือสิ่งที่ท่านไม่ทำอะไรซ้ำซากอยู่ตลอดเวลา

5	4	3	2	1
---	---	---	---	---

30. Work in which you feel you have helped another person.

งานคือสิ่งที่ท่านรู้สึกว่าได้ช่วยเหลือผู้อื่น

5	4	3	2	1
---	---	---	---	---

31. Work in which you add to the well-being of other people.

งานคือสิ่งที่ท่านเพิ่มพูนความสุขสบายให้แก่ผู้อื่น

5	4	3	2	1
---	---	---	---	---

32. Work in which you do many different things.

งานคือสิ่งที่ท่านทำของหลายอย่างต่าง ๆ กัน

5	4	3	2	1
---	---	---	---	---

33. Work in which you are looked up to by others.

งานคือสิ่งที่ท่านได้รับการยกย่องนับถือจากผู้อื่น

5	4	3	2	1
---	---	---	---	---

34. Work in which you have good contacts with fellow workers.

งานคือสิ่งที่ท่านมีมนุษยสัมพันธ์ดีกับเพื่อนร่วมงาน

5	4	3	2	1
---	---	---	---	---

35. Work in which you lead the kind of life you most enjoy.

งานคือสิ่งที่ท่านดำเนินชีวิตอย่างถูกต้องใจท่านมากที่สุด

5	4	3	2	1
---	---	---	---	---

36. Work in which you have a good place in which to work (good lighting, quiet, clean, enough space, etc.)

งานคือสิ่งที่ท่านมีสถานที่ทำงานดี เช่น มีแสงสว่างพอเพียง, เงียบสงบ, สะอาด, กว้างขวาง

5	4	3	2	1
---	---	---	---	---

37. Work in which you plan and organize the work of others.

งานคือสิ่งที่ท่านวางแผนและปฏิบัติงานของผู้อื่นด้วย

5	4	3	2	1
---	---	---	---	---

38. Work in which you need to be mentally alert.

งานคือสิ่งที่ท่านต้องเป็นคนที่ตื่นตัวอยู่เสมอ

5	4	3	2	1
---	---	---	---	---

39. Work in which you are paid enough to live right.

งานคือสิ่งที่ท่านมีรายได้พอแก่การดำรงชีวิตที่ถูกต้อง

5	4	3	2	1
---	---	---	---	---

40. Work in which you are your own boss.

งานคือสิ่งที่ท่านทำอะไรก็ตามใจชอบ

5	4	3	2	1
---	---	---	---	---

41. Work in which you make attractive products.

งานคือสิ่งที่ท่านผลิตของออกมาเป็นที่ศรัทธาและดึงดูดความสนใจ

5	4	3	2	1
---	---	---	---	---

42. Work in which you are sure of another job in the company if your present job ends.

งานคือสิ่งที่ท่านแน่ใจว่าจะมีงานใหม่ให้ทำเมื่องานเก่าสิ้นสุดลง

5	4	3	2	1
---	---	---	---	---

43. Work in which you have a supervisor who is considerate.

งานคือสิ่งที่ท่านมีผู้บังคับบัญชาที่เห็นอกเห็นใจลูกน้อง

5	4	3	2	1
---	---	---	---	---

44. Work in which you see the results of your efforts.

งานคือสิ่งที่ท่านมองเห็นผลการทำงานของท่าน

5	4	3	2	1
---	---	---	---	---

45. Work in which you contribute new ideas.

งานคือสิ่งที่ท่านสร้างสรรค์แนวความคิดใหม่ ๆ

5	4	3	2	1
---	---	---	---	---

PERSONAL QUESTIONNAIRE IN THAI

กรุณารอกข้อความในช่องว่างที่เว้นไว้ หรือกากบาทหน้าคำตอบที่ท่านเลือก

๑. โรงเรียน ..... ซึ่งเป็นโรงเรียน..... ก. ราษฎร์  
..... ข. รัฐบาล
๒. ท่านอาศัยอยู่ในจังหวัด .....
๓. ขณะนี้ท่านอายุ ..... ก. สูงกว่า ๑๖ ปี  
..... ข. ๑๖ ปี  
..... ค. ต่ำกว่า ๑๖ ปี
๔. ท่านมีเชื้อชาติ ..... ก. ไทย  
..... ข. จีน  
..... ค. อินเดีย  
..... ง. อื่นๆ ( โปรดระบุ )
๕. ท่านนับถือศาสนา ..... ก. พุทธ  
..... ข. คริสต์  
..... ค. อิสลาม  
..... ง. อื่นๆ ( โปรดระบุ )
๖. ผลการเรียนของท่านในภาคเรียนที่แล้ว ..... ก. A หรือ ๘๐-๑๐๐%  
..... ข. B หรือ ๗๐-๗๙%  
..... ค. C หรือ ๖๐-๖๙%  
..... ง. D หรือ ๕๐-๕๙%  
..... จ. E หรือ ต่ำกว่า ๕๐%
๗. รายได้ของบิดาหรือมารดาท่านต่อเดือน .....



APPENDIX D  
COVER LETTER IN THAI

คณะศึกษาศาสตร์, มหาวิทยาลัยโอเลกอนสเตท  
 เมืองคาวาลิส, มลรัฐโอเลกอน, สหรัฐอเมริกา

มกราคม ๒๕๒๓

เรียน เพื่อนนักเรียน ม.ศ. ๓ ที่รัก และ นักร้อง

เนื่องจากท่านกำลังศึกษาอยู่ในชั้น ม.ศ. ๓ ข้าพเจ้าจึงใคร่ขอความร่วมมือจากท่านโดยใช้เวลาเรียนของท่านประมาณ ๑๐-๒๐ นาที เพื่อตอบคำถามในแบบสอบถามที่แนบมาพร้อมจดหมายนี้ ความร่วมมือจากท่านจะเป็นประโยชน์อย่างมากในการศึกษาและวิจัยเกี่ยวกับค่านิยมในการทำงานของนักเรียนไทยซึ่งเป็นวิทยานิพนธ์ในการศึกษาชั้นปริญญาเอกของข้าพเจ้า ยิ่งไปกว่านั้นผลจากการวิจัยครั้งนี้ ข้าพเจ้าจะนำไปมอบให้กับกระทรวงศึกษาธิการ เพื่อที่ว่าค่านิยมในการทำงานอาจจะมีส่วนร่วมในการสร้างหลักสูตรของนักเรียนไทย

การตอบคำถามในแบบสอบถาม ขอความกรุณาระบุชื่อโรงเรียนที่ท่านศึกษาอยู่ แต่ไม่ต้องแจ้งนามของท่าน ท่านมีอิสระภาพที่จะตอบและไม่ตอบคำถามใดก็ได้ คำตอบของท่านทุกข้อจะถูกเก็บรักษาไว้อย่างดี และจะนำออกมาใช้เฉพาะในการหาผลลัพธ์ของงานวิจัยนี้เท่านั้น

ข้าพเจ้าขอขอบพระคุณล่วงหน้าในความร่วมมือครั้งนี้ของท่าน

ขอแสดงความนับถือ

( นางบุรฉัตร สิทธิพงศ์ )

## Appendix E

COVER LETTER. (Translated from Thai)

School of Education  
Oregon State University  
Corvallis, OR 97331  
U.S.A.

January, 1980

Dear Friend:

Because you are in grade 10, I would appreciate your help.

I am hoping you will take 10-20 minutes from your studies to answer the questions in the attached questionnaire. This will help me to find out Thai students work values. This research study is a part of my research for the doctoral degree in Education. Specifically, it is important to me to attempt to know the work values of Thai students. The results of the study will be submitted to the Ministry of Education. The work values may help the Ministry of Education to design the curriculum for Thai students.

Please indicate your school, do not sign the questionnaire, answer only the questions that you want to answer and do not answer any questions that you are not comfortable answering. The responses to the questionnaire will be kept confidential and will be used only for compiling data to find out the result of the study.

Thank you in advance for your cooperation.

Sincerely,

(Bularat Sitthiphong)  
A doctoral candidate in School  
of Education, OSU

## APPENDIX F

JURY OF EDUCATIONAL EXPERTS

Dr. Charuayporn Thoranin, Ph.D.

(C. Thoranin)

Acting - Director

Red Cross Youth Division,

Physical Education Department,

National Stadium, Rama 1 St.,

Bangkok 5, Thailand.

Dr. Nittaya Passornsiri, Ph.D.

(N. Passornsiri)

Research Staff

National Board of Education

Office of the Prime Minister,

Sukhothai Rd.,

Bangkok 3, Thailand.

Dr. Orasa Dissara, D.Ed.

Head of Curriculum and Instruction Department

Faculty of Education,

Suan Sunandha Teachers College,

Oo-thong-norg Rd.,

Bangkok 3, Thailand

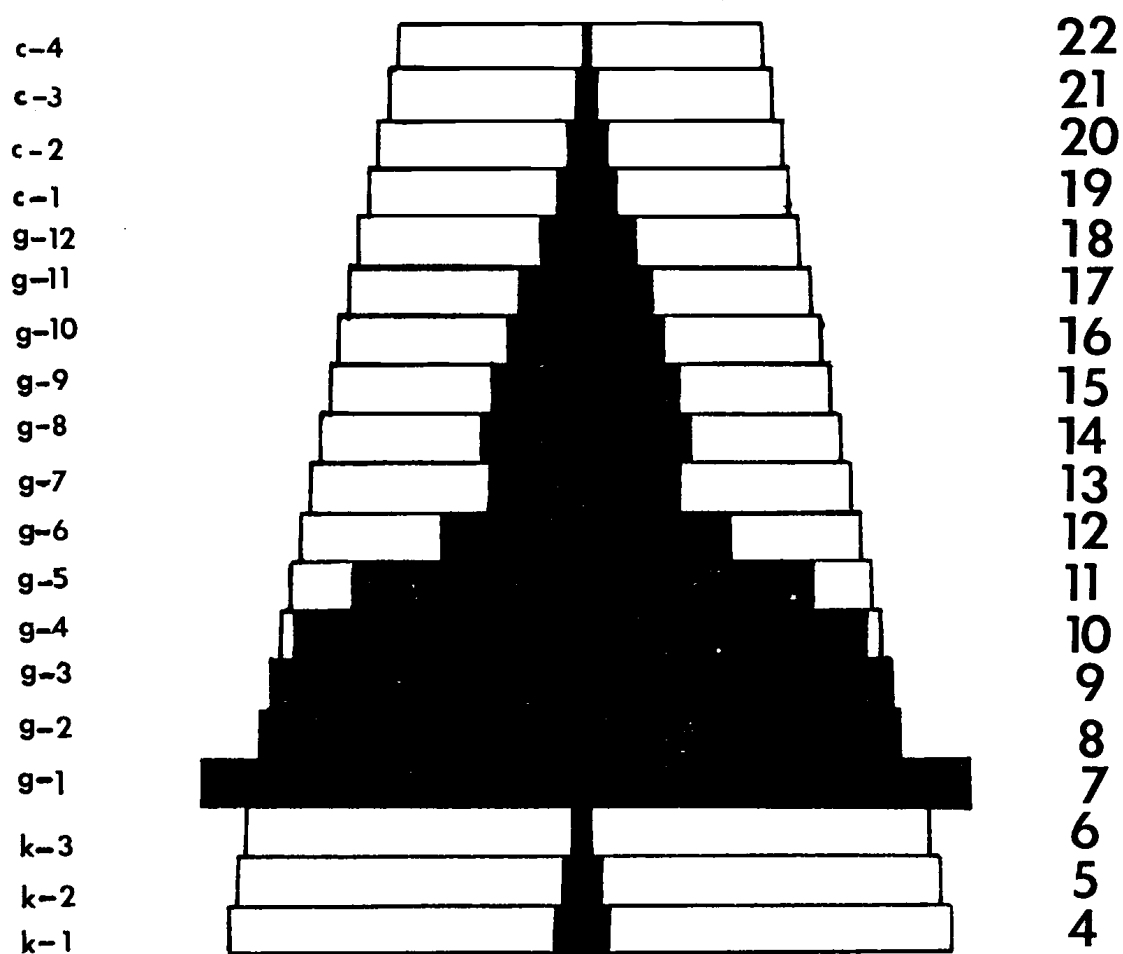


## APPENDIX G

## MODEL OF 1978 THAILAND EDUCATIONAL PYRAMID

LEVEL

AVERAGE AGE



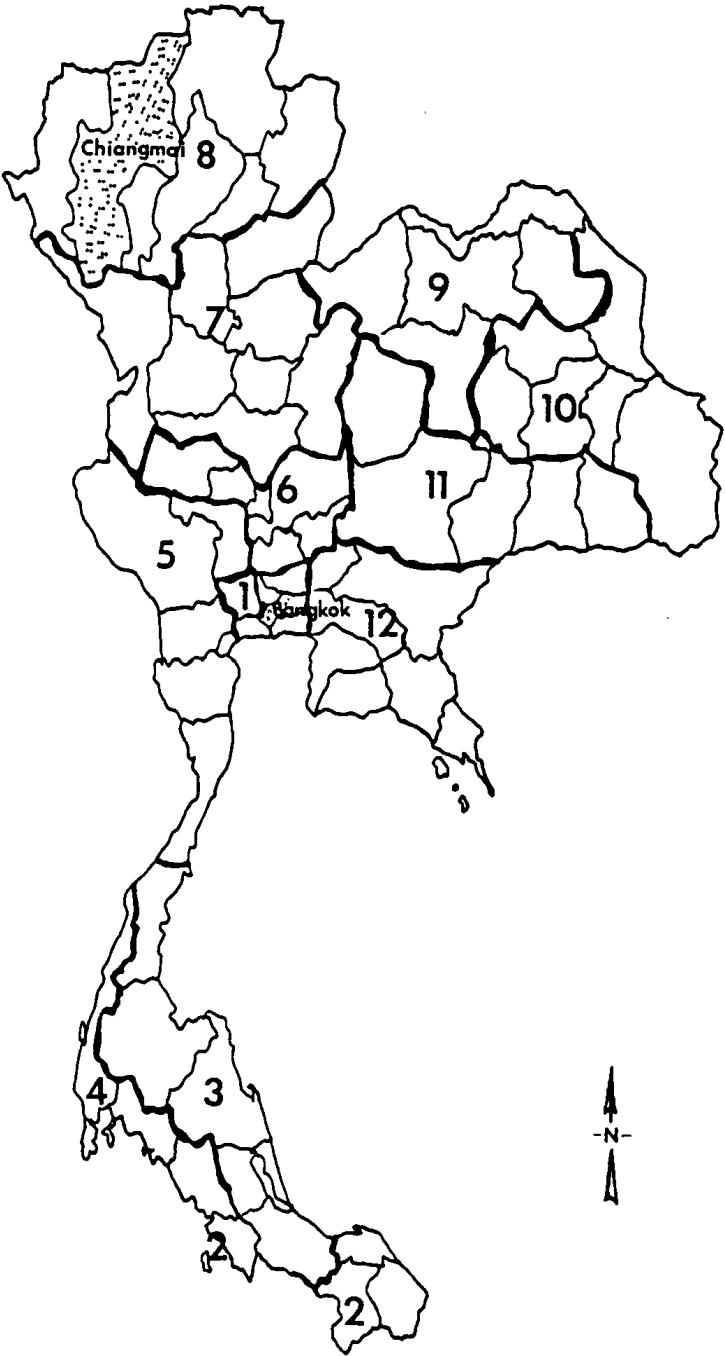
Number of students



Number of population outside school

APPENDIX H

MAP OF EDUCATIONAL REGIONS



## APPENDIX I

THE FOG INDEX-  
A QUICK ESTIMATE OF READABILITY

The Fog Index was developed by Robert Gunning. The following are the steps in its application.

1. Take several samples of one hundred words each, spaced evenly through the article or book.

Count the number of sentences in each sample. (Stop the sentence count with the sentence ending nearest the one-hundred-word limit).

Divide the total number of words in the passage (100) by the number of sentences.

This gives you the average number of words in a sentence. Jot down this number.

2. Count the number of words of three syllables or more per one hundred using the same samples.

Do not count these words:

- a. Words that are capitalized.
- b. Compound words that are the combination of short, easy words (Ex. bookkeeper).
- c. Words that are verb forms made from three syllables by adding -ed, or -es (Ex. created).

This gives you the percentage of hard words in the passage. Jot this figure directly under the figure obtained in step one.

3. To determine the Fog Index, total the two figures just counted and multiply that total by 4 (four-tenths). This gives you the approximate grade placement of the writing, but tends to run somewhat high with more difficult materials.