THE RELATIONSHIP OF ACADEMIC TRAINING AND EDUCATIONAL EXPERIENCE TO THE ADMINISTRATIVE EFFECTIVENESS OF SECONDARY SCHOOL PRINCIPALS AS PERCEIVED BY TEACHERS IN EDUCATIONAL REGION I, THAILAND

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CHAPTER I

NATURE AND PURPOSE OF THE STUDY

Introduction

Education is the social process by which people are subjected to the influence of a selected and controlled environment (especially that of the school) so that they may attain social competence and optimum individual development.¹ School is a social institution where the individuals are able to get education. In order for a school to provide a good education, many people, conducting many tasks, must function in concert. Two important groups who strive to provide and perhaps who ultimately will determine the quality of an educational program in a school are the teachers and principals. President Ford stated, "Education really relies on people and on teachers who work in the schools, and on the administrators who direct them."²

School administration is a job-process which requires special skills, techniques, and knowledge for the principal. The principal must know what techniques can be used to work effectively with subordinates. The principal must possess knowledge and skills that can


be applied to those techniques. The school principal of today must be skilled in maintaining those aspects of the school that serve people best by enabling the faculty to use their talents to shape the school. Further, he should accept some valuable critiques from the teachers and his other subordinates. He should develop a decision-making process that is agreeable and will give a "we-feeling" between him and his subordinates. Then the school's operation will run smoothly and the principal's administrative behavior will be considered as effective. Luft stated that, "... the ability of a school system to innovate successfully depends on the psychological climate of that system."³ The psychological climate of a school system must rest on trust and sincerity of both teachers and principals. There must be a universal respect and mutual understanding between all members of the staff. The principals are able to evaluate and criticize the teachers to improve their working ability. In the same manner, teachers should have the opportunity to give the sincere critiques to their principals in order to improve their administrative performance. From these points of view, it could be concluded that, as declared by Baldridge that the university is a "collegium", or a "community of scholars",⁴ and that a school is a community of scholars whose concept was viewed by Millet as follows:

The concept of community presupposes an organization which functions are differentiated and in which specialization must be brought together in a harmonious whole. But this


process of bringing together, of coordination if you will, is achieved not through a structure of superordination and subordination of persons and groups but through a dynamic of consensus. 5

There is no single criterion measuring the effectiveness of a school principal. It has been suggested that the effectiveness of a school principal should be measured in terms of his understandings of working relationships with and among individuals and groups, as well as his skills, knowledge, understanding, conditions, and processes that can be marshalled to achieve commonly accepted goals. People in different positions, (e.g. teachers, students, parents, school superintendents), have different perceptions of the characteristics responsible for the principal's effectiveness. The principal's effectiveness in this study was perceived by the principal's staff-members, namely teachers.

Statement of the Problem and Questions to be Answered

Though the Thai administrative structure has been changed to a democratic system of government, the traditional nobility is still in evidence. Most of the Thai civil servants still enjoy official titles which have been traditionally conferred and appointed by the nobility. These titles are based upon seniority and salary scales. Some of the civil servants had rejected a position classification system which was recently introduced by the Civil Service Commission in the hope of improving and reforming the personnel management of the Thai government.

Today many people of Thailand seem to be dissatisfied with the appointment procedures of officers or leaders in many civil-service units of Thailand's Government. Some of the individuals seem suitably qualified for their assigned positions, while some do not. One reason for possible discord is that some of the appointed leaders have not been well-trained, or do not have the appropriate expertise to conduct governmental affairs.

As with other governmental agencies, this circumstance occurs in the Ministry of Education in the case of appointment of principals to public secondary schools. School principals are appointed on the basis of their rank and seniority within the Ministry of Education regardless of their background in educational administration training. This situation posed several questions which may only be answered through careful research. The research problem was therefore to determine whether there were differences in levels of administrative effectiveness of principals in selected areas of Thailand as perceived by teachers which could be explained by differences in academic preparation of educational administration and other fields of educational background. The problem could be stated generally in the following broad research questions:

1. Did secondary school principals trained in educational administration differ in administrative performance from secondary school principals not trained in educational administration?

2. Did junior secondary-school principals differ in administrative performance from junior-senior secondary-school principals?
3. Did high effective junior secondary-school principals differ in administrative performance from high effective junior-senior secondary-school principals?

4. Did low effective junior secondary-school principals differ in administrative performance from low effective junior-senior secondary-school principals?

Hypotheses of the Study

From the preceding questions developed in the statement of the problem, there were a number of hypotheses formulated and proposed to test through this research study. Four general hypotheses could be stated as follows:

\( H^A_0 \) : There would be no significant difference in administrative performance between secondary-school principals trained in educational administration and secondary school principals not trained in educational administration.

\( H^B_0 \) : There would be no significant difference in administrative performance between junior secondary-school principals and junior-senior secondary school principals.

\( H^C_0 \) : There would be no significant difference in administrative performance between high effective junior secondary-school principals and high effective junior-senior secondary school principals.
There would be no significant difference in administrative performance between low effective junior secondary-school principals and low effective junior-senior secondary-school principals.

The corollaries of these four hypotheses are listed in Chapter III, pages 121-126.

Purposes of the Study

It is known that education is the basic element of a country's development. Education will help to develop people, economy, social aspects, and finally the country. All developed countries are able to develop and strengthen themselves successfully and effectively, because of high qualification of their citizens. Undoubtedly, education is an element that is used for considering man's qualification. It is also the sign of man's civilization, and modern society.

Thailand is a country that has been seeking ways to improve educational programs along with economic, social development and many other aspects. Thailand, like many developing countries, is searching for better educational administrators to improve the effectiveness of present and future educational systems to help the people. It is therefore hoped that the findings of this study will provide a beginning for identifying administrative effectiveness of the secondary school principals in Thailand. The means will provide some criteria for considering the minimum standards of the Thai secondary school principals. Recommendations will be made to the Ministry of
Education in the hopes of facilitating better decision-making in the area of appointment of principals to public schools.

Objective of the Study

The objectives of this study can be listed as follows:

1. To determine a means for identifying administrative effectiveness of the secondary school principals as perceived by the school teachers in selected areas of Thailand.

2. To determine if secondary school principals who have had academic training in educational administration differ significantly from those principals who have not as measured by the Perceptions of Administrative Interaction Questionnaire.

3. To make recommendations based upon the findings of this study which may assist the government in the decision-making process concerning the appointment of principals to public secondary schools.

Definition of Terms

The following terms used in this study are given definitions in order to eliminate confusion and misinterpretation and to allow precision in reporting findings.

**Junior Secondary-School Principal** The chief administrator of a school unit that includes Grades 8, 9, and 10 (Matayomsuska 1, 2, and 3). He/she has been employed by the Thai Government, and holds the first-grade officer rank.
Junior-senior Secondary-School Principal The chief administrator of a school unit that includes Grades 8, 9, 10, 11, and 12 (Matayomsuksa 1, 2, 3, 4, and 5). He/she has been employed by the Thai Government as a special-grade officer, which is the highest rank among teachers.

Full-time Faculty Member Any teacher who has worked with a junior or senior or a junior-senior secondary-school principal for one or more academic years. He/she has been employed by the Thai Government as a fourth, third, second, or first-grade officer in teaching rank.

Administrative Effectiveness The ratings given a principal on the four dimensions of the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.) by ten randomly selected full-time faculty members from each school.

High Effectiveness of Administrative Performance (Junior-secondary school) Those junior secondary school principals whose mean score total for the four dimension of the P.A.I.Q. are one standard deviation or more above the mean of the total number of junior and junior-senior secondary-school principals in the sample.

High Effectiveness of Administrative Performance (Junior-Senior secondary school) Those junior-senior secondary school principals whose mean score total for the four dimensions of the P.A.I.Q. are one standard deviation or more above the mean of the total number of junior and junior-senior secondary school principals in the sample.

Low Effectiveness of Administrative Performance (Junior-secondary school) Those junior secondary-school principals whose mean score total for the four dimensions of the P.A.I.Q. are one standard
deviation or more below the mean of the total number of junior and junior-senior secondary-school principals in the sample.

**Low Effectiveness of Administrative Performance (Junior-senior secondary school)** Those junior-senior secondary-school principals whose mean score total for the four dimensions of the P.A.I.Q. are one standard deviation or more below the mean of the total number of junior and junior-senior secondary-school principals in the sample.

**Professional Education Areas** Those areas that are common to elementary education, secondary education, educational administration, physical education, and related fields.

**Social Sciences** Those areas that are common to sociology, political science, history, geography, and related fields.

**Pure-Sciences** Those areas that are common to mathematics, biology, chemistry, physics, and related fields.

**Humanities** Those areas that are common to drama; art; music; languages (e.g. English, Chinese, Japanese, French, German); and related fields.

**Secondary-School Principals** refers to the total number of both junior and junior-senior secondary-school principals.

**Trained in Educational Administration** Junior or junior-senior secondary-school principals who had had educational administration as the major field of study in undergraduate or graduate level.

**Not Trained in Educational Administration** Junior or junior-senior secondary-school principals who had never had educational administration as the major field of study in undergraduate and graduate level.

**A Longer period of Administrative Experience** The junior or
junior-senior secondary-school principals who have had at least eleven or more years of school administrative experience.

A Shorter period of Administrative Experience The junior or junior-senior secondary-school principals who have had at most ten or less years of school administrative experience.

A Longer period of Teaching Experience The junior or junior-senior secondary-school principals who have had at least twenty-six or more years of school teaching experience.

A Shorter period of Teaching Experience The junior or junior-senior secondary-school principals who have had at most twenty-five or less years of school teaching experience.

Younger Secondary-School Principals The junior or junior-senior secondary-school principals who are 45 or less years of age.

Older Secondary-School Principals The junior or junior-senior secondary-school principals who are 46 or more years of age.

Limitations of the Study

There were a number of limitations of this study which should be noted as follows:

1. This study was considered as an Ex Post Facto Research that could be defined as:

... a systematic empirical inquiry in which the scientist does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulable. Inferences about relations among variables are made, without direct intervention, from concomitant variation of independent and dependent variables.6

---

ExPost Facto Research has three major weaknesses:

1) the ability to manipulate independent variables (the academic training and educational experience of principals);

2) the lack of power to randomize (The researcher took all secondary-school principals in Educational Region I, without random selection. Each principal was asked to randomly select teachers in his/her school);

3) the risk of improper interpretation (Ex Post Facto Research shows significant differences of correlations, not cause and effect).7

However, this study, like many in education, did not lend itself to true experimentation; therefore, Ex Post Facto Research was the most acceptable research methodology.

2. The Principals' Questionnaire which was used to determine academic training and educational experience was self-reported by the principals. The principals might fill out the questionnaire with whatever information they thought was good for them, regardless of truth and facts. If this circumstance occurred, it would reduce the reliability of this questionnaire as well as the findings of this study.

3. The responses to some of the items on the Principals' Questionnaire were designed so that the respondent selected a range in which his/her actual response fell. This may reduce the accuracy of those items. This measure was taken to reduce the data to a size acceptable for computer analysis.

4. Teacher perceptions of administrative effectiveness were obtained through the use of the Perceptions of Administrative

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7 Ibid., p. 390.
Interaction Questionnaire (P.A.I.Q.). Gathering responses by using a questionnaire type of instrument may result in a "halo effect". Persons sometimes carry over a generalized impression of a subject from one rating to another or try to make their ratings consistent. It is apparent that the halo effect reduces the validity of the ratings of some traits and introduces a spurious degree of positive correlation among the traits that are related.\(^8\)

5. The pilot-study of the Perception Administrative Interaction Questionnaire indicated that there were very few differences between the Thai and English version. Though only one item (Item 20) revealed a difference, it would reduce the reliability of this study (see Table V page 120).

6. Teachers, generally, are not prepared in administrative theory and practice, therefore, they may not be the best judges of administrative ability.\(^9\) Randall also supported this limitation and adds:

\[\ldots\text{ in spite of the limitations of the behavior descriptions based on teacher observation, such descriptions show promise of revealing new knowledge about the behavior of principals,}\]

\[\text{if interpreted cautiously. Moreover, since persons tend to act according to their perceptions of reality, rather than reality itself, teacher's perceptions of their principals' behavior, even if erroneous, are extremely important.}\(^{10}\)

7. Administrative Effectiveness has different meaning and its determination can be ascertained in many ways. This study dealt only


with administrative effectiveness as perceived by teachers through their ratings of their own principals on the P.A.I.Q.

8. The questionnaires for this study were mailed to the principals and teachers during the last session of school year in Thailand, when both principals and teachers were being busy in preparing the final examinations for the students, working on year-end reports, preparing for the closing of schools, etc. If it had been conducted at a different time of the year, the percentage of participation may have been higher.

9. The sample of this study was limited within a selected area, Educational Region I, of Thailand.

10. Finding of this study can be generalized only to the setting of this investigation.

Organization of the Study

Chapter I has provided the general background of the study, the problem of the study that needed to be investigated, the hypotheses of the study, the purposes and objectives of the study, definition of the terms, and the limitations of the study.

Chapter II will describe the background of Thailand's educational system, educational administration aspects, and the procedure of appointing public school principals. Role, power, and authority of the Thai school principals were also mentioned. This chapter mainly provides the literature related to the concepts of administrative effectiveness.

Chapter III will describe the research design. The development of the Principal's Questionnaire, the nature of the Perceptions of
Administrative Interaction Questionnaire (Teacher's Questionnaire)—including its reliability and validity, the translation of the questionnaire, the procedure of the pilot-study of the P.A.I Q. The selection of the sample, distribution and collection of the questionnaires also will be mentioned. This chapter will conclude with the description of the statistical procedures used to analyze the data.

Chapter IV will report the presentation and analysis of the data related to each of the hypotheses.

Chapter V will present a summary of the findings, discussion, and conclusions of this study. Recommendations and some suggestions will be made for further study.
CHAPTER II

SUMMARY OF THAILAND'S EDUCATIONAL ADMINISTRATION STRUCTURE
AND REVIEW OF LITERATURE RELATED TO THE CONCEPTS
OF ADMINISTRATIVE EFFECTIVENESS

Overview

This chapter is divided into two sections. Section I discusses
the educational system, educational administrative structure, the
procedure of appointing public school principals, and the description
of role, power, and authority of the school principals in Thailand.
The purpose of this section is to present background information for
the readers in an effort to provide insights which are intended to
assist in the understanding of the educational system, governmental
policies toward education, national goals and objectives of education
and the like for Thailand.

Section II examines some of the literature related to the concepts
of administrative effectiveness. In addition, the conceptual frame­
work of the study is presented. The purpose of this section is to
review some personal critiques and research studies in which
professional behavior, traits, and characteristics of administrators
are identified and described. These personal critiques and research
studies were confined to those in which the general behavior, traits,
and characteristics of school principals were observed and judged to be
effective in their activities or administrative roles.

A careful review of personal critiques and research studies was made with a high degree of emphasis placed on the academic training and educational experience of secondary school principals.

SECTION I

EDUCATION IN THAILAND

Introduction

It is generally agreed that education is a crucial element in the development of a country. Whether a country will be identified as a rapid or slow developing country depends, many times, upon the qualifications of its people. If most people of the country are uneducated, certainly that country will face difficulties in its development. On the other hand, if the majority of the people are well educated, then that country will develop very rapidly. Selakovich states that...

... Evidence exists which shows that countries having highly trained and/or highly educated citizens tend to fare better economically than those that do not. No nation in the modern world is able to maintain a high level of living for the masses without a corresponding high level of education for the masses.¹

Thailand is very much aware of this circumstance and is attempting to invest heavily in education, because it is perceived as being one of the key factors in the nation's economic and social development. Since 1960, Thailand has placed much emphasis on education in terms of reforming the educational system, establishing more new schools,

producing more qualified teachers, upgrading the skills of non-certificated teachers, upgrading the skills of non-certificated teachers, and improving the curriculum at all educational levels, in order to provide an adequate educational program for the people of Thailand.

The philosophy of education in Thailand is based upon Buddhism which is the state religion and is considered as the centered value of the Thai life. A speech made by Premier Phya Bahol Balabaya, forty years ago indicated an appropriate educational philosophy and the close relationship between religion and education in Thailand. He said:

... The teaching of good behavior to the children of the land along with physical, verbal, and mental training, should constitute the fundamental aim of education. The Dhamma of the Great Teacher constitutes the best method for education in this direction ...  

Presently, Buddhism is still influential in the development of education at all levels in Thailand. A statement recently made by Dr. Sasithorn, a well-known educator and politician of Thailand will evidently support the above statement. He said:

Thai education is the application of Buddhism philosophy which is provided to each individual to (1) help himself, (2) help others, and (3) think logically.  

Education in Thailand today is essentially Western in organization and content. The organization is being gradually changed from the

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3 Pinyo Srichamlong, "Interview with Dr. Niphone Sasithorn, Minister of Education", *Pha Muang Thai Magazine*, No. 351 (December 11, 1975), pp. 27,35.
European to the American pattern; however, the content and operational administration are still influenced by the British educational system. The government has assumed responsibility for the establishment, financial support, and direction of the national school system which is mainly arranged in the divisions of elementary, secondary, vocational, and higher education, with attendance at elementary school compulsory for all children. Although the literacy rate in Thailand is now above 70 percent, among the highest in Asia, 4 Thailand is not yet satisfied with this percentage and is attempting to develop and improve its educational programs. Other objectives of the educational program include providing citizenship training, and offering professional and vocational training, 5 in order to achieve the ultimate goal of country development and the well-being of all Thai people.

Policy and Aims

The Government Policies in Education

To develop the country's prosperity and the people's standard of living, it is necessary to develop the national resources and to utilize both economic forces and manpower. Economic development is a major goal of the Thai Government, and this can be successful only through human resource development. Without enough qualified people that goal will be most difficult to achieve, even in the countries


that are very rich in natural resources. Selakovich makes a point that well verifies the above statement as follows:

It is generally true that the natural resources in many South American and African countries are very great, while the educational level is extremely low. It is also true that these areas of the world are characterized by very low per capita income; in fact, the great majority of the people live on the edge of starvation.\(^6\)

The natural resources of a nation do not, alone, determine its economic status. Norton studied the relationships among natural resources, educational development, and per capita incomes of people in certain countries; he found, as shown in Table I, that some nations rich in natural resources are poverty stricken. Others, such as Denmark and Switzerland have made highly effective use of education, have meager natural resources but high per capita incomes.

Data revealed in the table also illustrate very well the development of human capital or human resources, or education in countries where natural resources are very limited. The generalizations which are suggested by the table appear to have applications to other nations and other areas of the world as well.

The educational policy of Thailand has been developed in accordance with the national plan of economic and social development which was started in 1960. On February 12, 1959, the full cabinet under Prime Minister Field Marshal Sarit Thanarat stated in the Parliament, the national policy for education as follows:

Recognizing the fact that children and young people will contribute the essential strength of the nation in the future, the government must devote great concern to the education. Procedures shall be undertaken to insure that they will receive both academic and moral education. The

TABLE I
NATURAL RESOURCES, EDUCATION, AND INCOME

<table>
<thead>
<tr>
<th>Nation</th>
<th>Natural Resources</th>
<th>Educational Development</th>
<th>Per Capita Income (Ave. 1952-54)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>High</td>
<td>Low</td>
<td>$230</td>
</tr>
<tr>
<td>Colombia</td>
<td>High</td>
<td>Low</td>
<td>250</td>
</tr>
<tr>
<td>Denmark</td>
<td>Low</td>
<td>High</td>
<td>750</td>
</tr>
<tr>
<td>Mexico</td>
<td>High</td>
<td>Low</td>
<td>220</td>
</tr>
<tr>
<td>New Zealand</td>
<td>High</td>
<td>High</td>
<td>1,000</td>
</tr>
<tr>
<td>Switzerland</td>
<td>Low</td>
<td>High</td>
<td>1,010</td>
</tr>
<tr>
<td>United States</td>
<td>High</td>
<td>High</td>
<td>1,870</td>
</tr>
</tbody>
</table>

National Board of Education operates under and is responsible for developing a national policy for education. This scheme must meet the national needs and simultaneously be coordinated with the system of the Thai Government. The Thai people should have more opportunities for broader participation in their own educational administration. The government will control education in so far as necessary to implement that scheme within normal agencies, and will provide such help as may be necessary to achieve its ends.\(^7\)

The educational policy, developed by the National Board of Education, is submitted to the Economic Development Board which in turn submits it to the Cabinet for approval. A working group representing the National Economic Development, the National Education Council, the Budget Bureau, and the Educational Planning Office, uses the approved broad policy to draft specific educational policies. The policies are then submitted to the Joint Committee representing the National Economic Development Board and the National Education Council to be examined and approved as the national educational policy.

The national education policy provides that improvements will be made at optimum levels of education in order to achieve economy and utility through the encouragement of modern techniques of educational administration. In order to ensure equal opportunity for all children of compulsory school age, adequate school buildings, equipment and teachers will be provided. The secondary educational system will be oriented toward occupational requirements and efforts will be concentrated on preparing the necessary supply of qualified middle-level manpower. In teacher training, qualitative and quantitative improvements will be made by taking into consideration shortages at different teaching levels and in different academic fields. Appropriate

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improvements and expansion will also be introduced at the university level in such fields as engineering, agriculture, medicine, and natural sciences. Adult education will be provided as a means for continuing compulsory education. The Government will provide assistance to private schools by financial grants, enforcement of standards, educational supervision, hiring of qualified teachers, and in-service training of teachers. Co-ordination will be established with the local authorities so that they participate more fully. Thai national customs and traditions, morality, art and religion will be preserved and promoted through education. 8

Recently, the Government's policy in education has changed from social commitment to manpower training in line with the demand. Major policies in force can be illustrated as follows:

1. Education is to be recognized as among the prime functions of the State, and must receive the support and stimulation due to it.

2. The educational system of the nation must be organized by the State and all educational institutions must be under its supervision.

3. The State should allow institutions of higher education the freedom to operate within the framework of relevant legislation.

4. The State is responsible for the training of teachers.

5. In carrying out the work of education the State shares its labour with private organizations of persons, at those levels not defined as higher education.

6. The State supports private education in accordance with established regulations.

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7. The State supports vocational education as extensively as possible within its financial capacity in accordance with the economic conditions and needs of the nation.

8. The State supports adult education to serve the needs of those who have missed the opportunities for school education, and also for the purpose of improving vocational efficiency.

9. The State promotes study and research in all fields of science and art.

10. The State has the duty to control, advise, and inspect institutions of education according to established regulations.

The Thai Government, with a great sense of urgency, is raising the efficiency of the people, improving their knowledge, arousing their awareness of citizenship, and recruiting their personal abilities, to contribute to the economic development of the country both directly and indirectly. This is an attempt to achieve in the Thai citizenry a thoughtful and intelligent, strong and healthy, high level of spiritual ideals, acceptance of responsibilities for community and society, and capability in their occupations.

**National Aims and Objectives of Education**

The aims of education in Thailand, like many other statements of educational aims, tend to be broad and sometimes vague, but they do provide an indication of the values held by the national Government, give direction to Thailand's educational leaders, and represent the best set of guidelines available for determining the orientation of the educational system. When it is stated that education should be carried

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out "in harmony with the political and economic system of the country," it is implied that educational goals must be related to national goals and plans, and that the training of students should consider the manpower needs of the nation.

Current aims of education in Thailand have been broadly set out by the 1960 National Scheme of Education, and they are presently in effect. They are quoted as follows:

1. The Thai people shall be educated according to their individual capacities, so that they become moral and cultured citizens, with a sense of discipline and responsibility, with good mental and physical health, and with a democratic outlook.

2. Boys and girls should receive education in school at least up to the age of fifteen.

3. Boys and girls should strive to gain knowledge and experience that will serve useful purposes in their lives.

4. Education shall be carried out to serve the needs of individuals as well as of societies, on condition that it is in harmony with the economic and political system of the country. It shall comprise:
   a. Moral education--ethics and refinement, moral responsibility, and the spirit of service.
   b. Physical education--the improvement of good health, both mental and physical, and a sporting spirit.
   c. Intellectual education--the improvement of thinking, acquisition of knowledge, techniques and principles conducive to a useful and happy life.
   d. Practical education--the promotion of industrious habits, perseverance, and training in manual skills that are basic to good living and occupation.10

The results and recommendations from the research and evaluation of the previous Socio-Economic Development Plan, which was started in 1961 and ended in 1971, indicated that the problems of manpower shortage in Thailand were almost eliminated, and that the current and future plans should emphasize the improvement in the quality and effectiveness of manpower at all levels. Implicit in that statement is the fact that improvement in the quality and effectiveness of education at all levels should also be accomplished.

In order to facilitate achievement of current and future national development plans, the Ministry of Education attempts to anticipate educational needs, develop educational objectives, and implement them in accordance with those plans. For example, the educational objectives developed by the Ministry of Education for a recent year, are as follows:

1. To develop the educational system so that it will play the maximum possible role in social and economic development of the country.

2. To expand lower elementary education to care for the growth in school age population, and to expand upper elementary enrolments as rapidly as possible so that universal seven-year compulsory education, can be achieved by the late 1980's.

3. To expand secondary and higher education, particularly in the fields of medicine, technology and teacher education so that the country's future manpower requirements are met.

4. To increase the efficiency of all levels of education by reducing repeater, dropout and failure rates.

The Thai Government had set up the long-term project of Economic and Social Development which was divided into following steps: the First Six-year Plan (1961-1966), the Second Five-year Plan (1967-1971), the Third Five-year Plan (1971-1976), and the Fourth Five-year Plan (1976-1980).
5. To improve and diversify curriculum at all levels, particularly in rural areas, so that what is learned is more directly applicable to the future lives the children will live. It is desired that secondary education courses should provide students with a general academic background, while at the same time preparing them either for further education courses, or for the future vocation.

6. To improve the qualification structure of the teaching force at all levels.

7. To expand and improve education for rural development in order to attempt to lessen the wide disparities of incomes between the rural and urban areas, and the agricultural and industrial sectors.

8. To expand non-formal education rapidly in accordance with the concept of life-long education.  

Structure and System of Education

The structure of the present educational system of Thailand is conventional in its design. It consists of a basic K-4-3-3-2(3) structure with the kindergarten or preprimary education as a combination of two-year kindergarten and one-year pre-primary education. The first seven years comprise the lower and upper elementary levels (Elementary or compulsory Education). The last five years include the junior and senior secondary levels (Secondary Education), or "academic" stream, as well as the "vocational" (six-year) stream. In addition higher education is considered as part of the basic structure of Thailand's educational system. (To assist in a quick overview, see Figure 1: The National Structure of the School System in Thailand on page 27.)


Figure 1. The National Structure of the School System in Thailand
The four levels of the school system may be briefly described as follows:

**Kindergarten or Pre-primary Education.** This educational level provides training for children between 3 to 6 years of age prior to the compulsory education. Each child may attend this kind of school for one, two or three years, depending upon his willingness to prepare himself for education in the elementary school. This, of course, is by no means required by authorities. It is also costly to many parents and still non-compulsory.

**Elementary or Compulsory Education.** This level of education aims at the child's intellectual growth and physical development. Educational activities must be provided to prepare the child mentally, emotionally, and socially so that he will ready for the next educational levels, secondary and higher education. According to the Elementary Education Act of 1921, this educational level is free for all children, and all children are expected to attend school from the age of seven until the age of fifteen.

Additionally, with the promulgation of the new National Scheme of Education of 1960, it was decided that the duration of compulsory education should be extended gradually to seven years depending upon the resources and readiness of each locality. This provision has been delayed because of economic constraints. It is expected that the seven-year compulsory education can be achieved throughout the country by the late 1980's.13

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There are two levels of elementary education, four-year lower elementary school (Prathom 1-4) and three-year upper elementary school (Prathom 5-7). At present, the majority of the upper elementary schools are attached to existing Grades 1-4 schools which have thus become Grades 1-7 schools, but some exist separately.

Secondary Education. This educational level is concerned with exploring and developing the interests and aptitudes of boys and girls along with providing the knowledge and skill to enable them to carry out an occupation or further education as well as form a foundation for a well-conducted life.

Secondary education is divided into junior and senior secondary schools, each consisting of not more than three years. In order to allow for individual differences, secondary education offers two streams, academic and vocational. The academic stream consists chiefly of courses designed to prepare the students for college or university work. Within the academic stream, secondary education consists of five years of study; three years in junior and two years in senior secondary schools.

The vocational stream aims at preparing the students for entry into skilled occupations in various areas. There are two levels of vocational secondary schools, junior and senior, which are respectively referred to as elementary and intermediate vocational education. Each level covers a period of three years.

Boys and girls who have completed either the five-year course of the academic stream or the six-year course of the vocational stream, are qualified to apply for higher studies or universities.
Higher Education. This educational level refers to the education continuing from secondary education, or Grade 12 (Matayom Suksa 5) for the academic stream and Grade 13 (Matayom Suksa 6) for the vocational stream, or equivalent. It provides facilities for professional study or for higher learning and research. The programs for many professionals tend to include liberal arts courses, especially in the earlier years, in order to establish a broad and strong basis for future specialization and professional work.

Education in the university takes two or three years for the diploma, four years for the baccalaureat degrees (or five years in some fields, e.g., architecture military), and two or more years for the post-graduate or advanced studies.

Presently, in Thailand, the number of educational institutions and student enrolments have been increased at all educational levels throughout the country. There are about 33,000 elementary, secondary and vocational schools; nine technical or vocational institutes which offer vocational training at the junior-college level; 30 teacher training colleges which are also at the junior college level; one degree-granting college, and 19 universities (including private colleges). Studying at all levels are approximately 7.6 million students, of whom about 6 million are in the elementary schools, 1.5 million in the secondary school, and 0.1 million in the universities and colleges. Although the population growth-rate of the age-groups at all educational levels has been slightly higher than the rate of increase of enrollment, it may be noted that Thailand has
almost achieved the goals set in the *Asian Model*.\textsuperscript{14}

**Administrative Structure of Education**

All institutions in Thailand are operated largely as bureaucratic organizations. Some of the major criteria of a bureaucracy as stated by Weber are evident in the administrative structure. In the Ministry of Education, for instance, the organization of offices follows the principle of hierarchy, rules and regulations, and the like.\textsuperscript{15}

Different Government's agencies take responsibilities. Both centralization and decentralization can be found in Thailand's educational system. However, centralized activities seem to be more prevalent at the present time. This is probably true due to the fact that the vast majority of administrative arrangements and policies are developed and implemented by the central government.

It is not the purpose of this study to describe the full detail of each agency; however, in order to assist the readers in a better understanding of the operation of governmental agencies in Thailand, a brief description of the following government agencies will supplement Figure 2: Thailand Administrative Structure of Educational System on page 32.

**Ministry of Education.** The Ministry of Education is divided into one administrative unit (Office of the Under-Secretary), seven


Figure 2. Thailand's Administrative Structure of Educational System

departments (General Education\textsuperscript{16}, Vocational Education, Teacher Training, Physical Education, Educational Techniques, Religious Affairs, and Fine Arts) one degree-granting institution (King Mongkut's Institute of Technology), and one departmental level committee (the Private Education Committee). All these administrative units, except the Department of Educational Techniques, Department of Religious Affairs, and Office of the Under-Secretary, are directly responsible for operating schools of various types and providing administrative and support services to the entire educational system. The Department of Religious Affairs is charged with administering government subsidies to religious organization.

To assist in a quick overview, see Figure 3: The Organization and Administrative Structure of the Ministry of Education on page 34.

The Department of General Education is responsible for administering and supervising virtually all public secondary schools. In addition it is responsible for supervising and providing pedagogic advice to all local public elementary schools. Finally, the department is responsible for running all non-formal and adult education programs.

The Department of Vocational Education operates all public vocational schools and technical institutes. It is also responsible for training all specialist teachers needed in vocational and technical education.

The Department of Teacher Training is responsible for training degree and sub-degree teachers needed by the general education system.

\textsuperscript{16}The Department of General Education results from the combination of the former Department of Secondary Education and the Department of Elementary and Adult Education.
Figure 3. The Organization and Administrative Structure of the Ministry of Education

The Department of Physical Education is responsible for training physical education teachers, for giving advice and preparing curriculum on physical education, and for assisting in organizing school sporting activities. In addition the department is in charge of operating the National Stadium.

The Department of Fine Arts operates a few special schools for children particularly interested in music, drama, dance, and fine arts. These schools are for students who desire to become professional performers or artists. Of course, the Department of Fine Arts is also responsible for the fine arts curriculum in the comprehensive schools as well. In addition, it is responsible for maintaining historical monuments, keeping the National Archive, National Museum, and operating the National Library.

The Department of Educational Techniques is charged with developing and disseminating new teaching methods and curricula throughout the country, and is responsible for educational broadcasting and providing guidance services. In addition, it is responsible for approving new texts for use in schools, approving new curricula and carrying out research in teaching methods and related aspects of tests and measurement.

The Private Education Committee is responsible for supervising the private elementary, secondary, vocational, and higher education institutions, and checking that they are fulfilling the required regulations. It is also responsible for allocating government subsidies to these schools, and providing other assistance that might be needed to improve educational quality.
The Office of the Under-secretary exerts some control in financing, budgeting, planning, and local administration of the entire system under the Ministry of Education.

Kurusapa is the National Teacher Association, and operates in the close contact with the Ministry of Education. It is an independent organization belonging to the teachers and responsible for their welfare. It has also been given authority by the Civil Service Commission to be responsible for all teacher employment problems.

Ministry of the Interior. The Thai Government has decentralized the educational system by transferring all public elementary schools to the authority of the Ministry of the Interior. This transfer and decentralization took place in order to promote local interest and initiative for expansion and improvement of elementary education throughout the country. The local authorities, with the assistance of the Department of Local Administration have become responsible for the day-to-day operation of most public elementary schools. The Ministry of Education, however, remains responsible for elementary teacher training, curriculum development, text-book production and supervision of instruction while the Ministry of the Interior takes responsibility for financial, administrative and staffing matters.

The Department of Local Administration's main function is to delegate power to local authorities, provide subsidies for elementary education, approve new teaching posts and new facilities, and to enforce compulsory education.

See Figure 2: Thailand's Administrative Structure of the Educational System on page 32.
Ministry of Public Universities. The Ministry of Public Universities is responsible for higher education. There are thirteen government owned universities under the jurisdiction of this Ministry. The Asian Institute of Technology is an independent institution, but works cooperatively with the Ministry of Public Universities.

Regional, Local and Municipal Administration of Education. Overall responsibility for the regional and local administration of education under the authority of the Ministry of Education rests with the Under-Secretary's Office.

Educational administration has been divided into twelve regions. This is to accommodate education to the local geographical and cultural background as well as to the particular economic and social needs of the regions. See Figure 4: The Educational Regions of Thailand, page 38.

Each educational region is headed by a regional educational officer appointed by the Ministry of Education. He and his staff have no "direct line" administrative responsibilities, but serve as general supervisory and inservice training agents for the Ministry of Education. In each of the regional educational offices, there are a number of elementary supervisors and a few secondary supervisors.

Each educational region consists of from 5 to 8 provinces. Educational Region I, for example, consists of seven provinces (see page 39.)

Thailand is also divided into 71 provinces. Each province has a Provincial Educational Officer appointed by the Ministry of Education. He and his staff are responsible for all educational programs in his particular province. He also serves the Provincial Administrative

Figure 4. The Educational Regions of Thailand

Figure 5. The Educational Region I, divided by seven provinces
Authority and assists in operating its elementary education system. Under the Provincial Educational Officer are several District Educational Officers who are responsible for administering and supervising all educational programs in their particular districts. Again, the District Educational Officers, appointed by the Ministry of Education, are largely responsible for assisting in the day-to-day operation of local authority schools.

In municipal urban areas, elementary schools are operated by the municipal authorities themselves, who raise a significant proportion of their teachers directly, organize their own supervision, and operate their schools with a considerable degree of autonomy. They do, however, use the curriculum and textbooks recommended by the Minister of Education.

There are many other governmental agencies which operate both formal and informal educational programs. These activities are generally quite minor in importance, therefore a long list will not be provided. However, two illustrative examples will be given.

The Police Department, for example, operates some elementary schools particularly in sensitive border areas of Thailand. The Labor Department operates skill training centers, basically designed to upgrade the skills of some skilled workers. Both these departments are in the Ministry of the Interior. There are other educational activities such as the military cadet academies, police-cadet academy, and vocational training institutions, operated through the Ministry of Defense and other agencies.
Financial Support to Education

Public Education  The main sources for financing public education at all levels in Thailand are the national budget, school fees, and contributions from various sources. The annual budget for public education is proposed by the Ministry of Education and other agencies concerned and presented to the Cabinet for approval. To undertake expenditure, the Ministry of Education and other agencies are required to obtain detailed approval on a budgetary line item basis. The annual budget, finally, is authorized by the Cabinet through the Budget Bureau. The proportion of expenditure on the public system of education is about 19 percent of the total national budget, annually.17

Each institution receives a subsidy from the national budget through the Ministry of Education and its particular Department. The amount of money received depends on the request of each institution after the approval and allocation of the Cabinet.

Each public institution (except the compulsory school) is allowed to collect an educational fee from the students. The fee rate, is set by the Ministry of Education and its particular committee under the approval of the Cabinet, and depends on the training nature of each institution.

Each institution may receive contributions from philanthropists, usually in the form of donations, research funds, loans, and grants. These contributions, however, must be reported by the institution to the Ministry of Education who in turn must approve and accept the donations.

17 UNESCO, World Survey of Education V. Tourpali; Belgium; Casterman Co., 1971, p. 1122.
Finally, each institution is allowed an annual sum for equipment and supplies. For large repairs or important equipment, a special budget must be requested from the Ministry concerned.

**Private Education**

The major sources for financing private education at all levels are mainly private funds, tuition fees, and a small portion of educational budget from the government. Private school buildings and supplies are provided from private funds. As all levels of private education are under the jurisdiction of the Ministry of Education, grants to private institutions may be made under certain conditions. Public expenditure on private education is about four percent of the educational budget.  

Each private institution is allowed to collect tuition from students. The tuition rate is established by each institution, with the approval of the Ministry of Education. One determining factor of the rate assessed students is the nature of training provided by an institution.

**Administrative Structure of the Thai Secondary School**

The Thai secondary schools are organized in hierarchical offices. The principal is the head of all administrative officers, has supervisory responsibility for all staff-members, and is the manager of school buildings. He receives the policies, rules, and regulations from the upper-level officers, the Director General and the

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18 Ibid., p. 1122.
Under-Secretary, and is responsible for implementing them.

Working closely with the school principal in day-to-day activities are the assistant principals, teaching staffs, and non-teaching staffs.

The assistant principal acts in lieu of the principal. Normally, there is at least one but not more than four assistant principals in each secondary school. The number of assistant principals depends on the size of the school and number of the students. For example, schools with 500, 1,000, 1,500, and 2,000 students can have one, two, three, and four assistant principal, respectively. Each assistant principal is responsible for a specific area. For example, there may be an assistant principal for academic affairs, an assistant principal for business and finance, an assistant principal for discipline or administrative affairs, and an assistant principal for student services.

Figure 6: Administrative Structure of the Thai Secondary School, page 44, will aid the reader in understanding the Thai secondary school administrative structure and its personnel. Here, only assistant principals and their responsibilities would be briefly mentioned as follows:

The Assistant Principal for Academic Affairs acts in behalf of the Principal in matters relating to the school's schedule, new teacher orientation, educational exhibitions, teacher supervision, and teaching-learning process evaluation. He is also responsible for curriculum, instruction, in-service teaching programs, and teaching aids. He works closely with the Head or Chairman of subject areas, and cooperates with all other officers and students in school.

The Assistant Principal for Business and Finance is responsible for matters involving business enterprises, financial operations, and
Source: A broken file of the Ministry of Education, collected by Mr. Sagnuan Klangchamnan.

Figure 6. Administrative Structure of the Thai Secondary School
physical plant development and maintenance. He is responsible for purchasing all materials in school, operates printing office, and providing welfare to all staff-members, including the students.

The Assistant Principal for Discipline or Administrative Affairs deals primarily with student discipline. He works with student government, student organizations, teachers, non-teaching staffs, parents, and community. He is responsible for recommendation to the principal and the school council in making decision of punishing the students who violate rules and regulations of school.

The Assistant Principals for Student Services represents the principal in matters involving student activities, facilities and services. He is responsible for guidance, security, and welfare auxiliary services, the school clinic, food services, and recreation services.

An assistant principal may have many responsibilities in a small secondary school which has only one or two assistant principals. Despite the fact that he holds only one position, e.g. Assistant Principal for Academic Affairs, he may also assist the principal to take charge of responsibilities usually assigned to the Assistant Principal for Business and Finance or the Assistant Principal for Student Services.

The Thai Public Secondary School Principals

This portion of the literature review will report briefly on the status, qualification appointment procedure, roles and functions, power and authority of the Thai public secondary school principal.
Status The public secondary school principals, like many other governmental employees, are civil servants. The civil servants are grouped into five grades which range downward from the special (highest) through the fourth (lowest) grade. An individual's grade normally determines his position, salary scale, some limited definition of job functions, and technical qualification. Responsibilities are congruent with the civil service grade held by each individual. The low grade officials may be promoted to subsequent higher grades, if they meet the requirements of the civil service rules and regulations.

Normally, public secondary school principals hold the position of the first or special grade officials. All of them had been promoted from the lower grades under the civil-service rules and regulations.

The special grade principals are differentiated in scope of duties and responsibilities. The special grade principals have a larger scope of duties and more responsibilities than the first-grade ones. The special grade principals, for example, operate the large schools with more than 62 classrooms and 2,000 students, while the first grade principals operate the schools with not less than 45 classrooms and 1,500 students. 19

Qualification There are two major criteria for civil service appointment. They are level of a college degree earned and length of service in the government. At this point of time, it appears that length of service in the government is considered more important than the academic training of the individual. For example, if a secondary

19 These figures were found in a broken file of the Ministry of Education, under the name of Mr. Sagnuan Klangchaman. A copy of this file was requested by the researcher and sent to him by the Ministry of Education.
school principalship needed to be filled, an individual with a Masters Degree and seven years experience would be appointed over an individual with a Doctors Degree and three years experience.

Table X\textsuperscript{20} and Table XI\textsuperscript{21} respectively revealed the academic qualifications and the period of experience of the Thai public secondary school principals. It is evident that the school principals have various educational backgrounds (e.g., elementary and secondary education, educational administration, sciences, and social sciences), while most of them have a long period of experience in teaching career.

According to the Civil Service Act of 1975 (B.E. 2518), the Civil Service Commission has described the qualifications of the Thai public secondary school principals as follows:

1. Hold at least a diploma of education (a two year certificate after high school)
2. Hold at least a college degree or equivalent.
3. Posted as vice-principal or educational supervisor at least 2 years.
4. Had at least 4 years of teaching experience.
5. Posted as the first-grade principal at least 3 years.
6. Posted as the educational supervisor at least 5 years.
7. Had at least 7 years of teaching experience.\textsuperscript{22}

\textsuperscript{20} See page 135.
\textsuperscript{21} See page 136.
\textsuperscript{22} Adapted from Praditha Udornpimph, and Pinij Lonawan, Handbooks of the Civil Service Acts for Teachers. Unknown Publisher, Bangkok, Thailand, 1976, pp. 123-172.
Note: (3) and (4) are particularly the qualifications of first-grade principal, (5) and (6) and (7) are the qualifications of special-grade principal.

Appointment Procedure The 1975 Civil Service Act gives authority to the Under-Secretary of the Ministry and the Director-General of the department in the process of appointing the heads of divisions and sections in the ministries. This act, of course, is also applied to the Ministry of Education.

The first-grade principal must be appointed by the Director General of the Department of General Education under the recommendation of regional education and provincial officers.

The special-grade principal must be appointed by the Under-Secretary of the Ministry of Education under the recommendation of the Director-General.

Roles and Duties As in most secondary schools, the principal plays an important role. Indeed, he plays many essential roles and duties for his school and society. The Thai school principal, like the principal in other countries, works hard and involves in many activities which are cited as follows: school business management, student activities, individual student problems, personnel matters, curricular matters, policy and/or procedures, school plant and/or equipment, and community-parent relations. Mr. Mana Tamsakul categorized roles and duties of the Thai school principal as follows:

1) Academic

   a. Staff concerns. He (1) works closely with each subject-chairman and teacher, (2) rations responsibilities to each staff-member fairly in accordance with his/her ability and educational background; (3) encourages staff-members to attend the in-service programs, or to continue studying for improving, (4) superivises staff-
members in all subject areas, and (5) makes fair considerations concerning the procedure of teachers' promotion.

b. Curriculum and instruction concerns. He and his staff cooperatively (1) examine and select the contents of each subject area, (2) arrange the schedule of instruction, (3) select the appropriate text books, set up the library and audiovisual room, (4) evaluate teaching and learning processes, (5) record the statistical figures of all events, and (6) support the demonstration and exhibition of teaching-learning activities.

2) Student services

The school principal has responsibility for (1) students' orientation, attendance, guidance, and transportation services, (2) providing parking area (for bicycles), (3) maintaining the school clinic, cafeteria, fresh water supplies, and the gymnasium, (4) controlling the food service, (5) dealing with rules and regulations of school and student discipline, and (6) supporting students' athletic and non-athletic programs and activities.

3) General administration

The school principal has responsibility for:
(1) dealing with student records and files; (2) preparing the school budget, dealing with school finance and initiating proposals for grants; (3) examining school plants and school areas, and overseeing all school properties; (4) arranging the examination schedules; (5) developing and conducting the school's public relations program; (6) seeing most visitors and guests; and (7) the development of liaison with other community and government service agencies.23

The 1975 Civil Service Act has determined roles and duties of the public secondary school principals as follows:

1. Plan the school administration in the areas of academic matters, personnel administration, and general management.

2. Delegate responsibilities to vice-principals and staff-members in a way suitable to their ability and educational background.

3. Follow up, examine and supervise all routine jobs in order to meet the planning purposes and objectives.

4. Attempt to solve different school problems in order to improve teaching-learning processes and school administration.

5. Supervise teachers and all staff members.

6. Provide suitable security and welfare to students, teachers, and staff members.

7. Maintain and preserve a high quality and standard of school and its activities.

8. Develop all the school's dimensions in a very progressive and satisfactory fashion.


Power and Authority Thai school principals, like other Thai administrators, possess little discretionary power and authority. They perform their task under close executive direction of the upper-level civil service officials, Director-General and Under-Secretary. These officials are claimed as the major source of expertise and rational standards for program development and policy determination by the Civil Service Commission.

The power and authority of the Thai school principals include the power to reward, punish, instate, and appoint staff-members and students within their jurisdiction in accordance with the law and as entrusted by the central authorities; and to administer the schools in accordance with the rules and regulations, directions of authoritative

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central bodies. They exercise their power and authority of "inspection, instruction, giving opinions, orders, and advice" within the limits of discretion allowed by the central authorities.

Although the central authorities limit powers and authorities of the Thai school principals, they delegate some powers and authorities to the school principals which can be summarized as follows:

1. A school principal has the authority to govern teachers, students, and all staff-members within his/her school.

2. A school principal has the authority to keep cash for emergency expenditure not to exceed 15,000 baht, and can spend no more than 20 percent of that money at one time without immediately informing the upper-level officials or the Budget Bureau. (Note: approximately $1 = 20 baht)

3. A school principal has the authority to punish the fourth and the third grade officials (teachers) for minor violations of the Civil Service Acts, rules and regulations by cutting off their salaries in a period of time, or by reprimanding them.

4. A school principal has the authority to expel those students who seriously violate rules and regulations of the school, with the careful consideration and recommendations of the school council.

5. A school principal has the authority to appoint the chairman or head of each subject-area.

6. A school principal has the authority to issue the testimonial certificates and recommendations to the students.25

In summary, this section concerns many aspects of education—policy and aims of education, the educational system, educational

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25 These powers and authorities of the Thai school principal are written in a broken file of the Ministry of Education, under the name of Mr. Sagnuan Klangchamnan. A copy of this file was requested by the researcher and sent to him by the Ministry of Education.
administrative structure, and status, role, power and authority of the school principals--in Thailand. The Thai educational system has been patterned after the British system in both content and operational administration. All public secondary school principals are hired and appointed to the position by the central Government. The appointment procedures are based upon seniority, rank in civil service, and general educational preparation of school principals. Role, power, and authority of principals are defined by the bureaucratic system, and constituted upon rules and regulations of the Civil Service Commission and the law of the Central Government.

SECTION II

REVIEW OF LITERATURE RELATED TO THE CONCEPTS OF ADMINISTRATIVE EFFECTIVENESS

Introduction

The principalship today is different and much more difficult than it was a decade ago. The principal of this decade deals with problems of tension and conflict. The social revolution which has overtaken all communities to varying degrees has affected curriculum, school organization, discipline, student behavior, community relations, and the very nature of the teaching-learning process itself. Thus the old ground rules which fashioned today's schools into such similar and unquestioned molds are now largely obsolete--an obsolescence which has left the principal in too many cases without an acceptable mode of administrative behavior.
The secondary school principalship has undergone a drastic change, and the change continues. Moser observed that:

The basic dimensions (planning, allocating, stimulating, coordinating and evaluating) of the school principalship have not changed, but changing times mounting pressures, sharper expectations, and in some cases the very struggle for survival have changed and resulted in significant new demands of school principals.¹

McKague stated that:

The principal of today is expected to be a human relations expert—dealing fairly and equitably with teachers, students, the superintendent, community leaders and secretaries; an instructional leader who is familiar with everything going on in his school and who knows how to improve the entire program; and a public relations person who knows how to cope with parental interference and yet inspire community support.²

Conceptual Framework of the Study

Man was born with absolutely nothing. He has gained his ability to manage his life, his family, and his society through the knowledge which is derived from his training and experience.

Despite the assumption that training and experience usually relate to each other, they will be treated separately in this study. Training refers to knowledge or skills which are directly obtained by a person from specific learning experiences—normally in a formal organization. Experience refers to knowledge or skills that can be gained by a person through performing various tasks.

In Thailand, the principalship is normally obtained through a


series of promotions in successive positions. For example, the individual is promoted from classroom teacher, to chairman or head of subject-area, to assistant to the principal, to vice-principal, and then to principal.

The secondary school principals who graduated in educational administration, are expected to have expertise in administrative decision-making, communication, general administrative behavior, and educational leadership. They are expected to know how to apply these administrative dimensions effectively to everyday school administration.

![Diagram](image)

Figure 7. Conceptual Framework of the Study

Similarly, the secondary-school principals who have not been trained in educational administration but who have had experience in
school administration, are expected to gain knowledge in administrative decision-making, communication, general administrative behavior, and educational leadership. They also are expected to know how to apply the administrative dimensions in their everyday practice.

It is a part of common wisdom to expect that the secondary-school principal who has been trained in educational administration or who has experience in school administration will be considered as an effective principal.

Definitions and Criterion of Administrative Effectiveness

The word, "Administrative Effectiveness" is very difficult to define, because the job or role of today's administrator becomes more difficult and is engaged in the development of many alternative programs. Andrew Halpin insisted that the problem of determining administrative effectiveness is particularly that of developing suitable criteria of effectiveness. A number of research studies indicate that the evaluation of administrative effectiveness depends upon the expectations, perceptions, needs and frame of reference of the different referent groups.

For the purpose of this study, the definition of administrative effectiveness as developed by Guba and Bidwell will be used. They define effectiveness as:

... the extent to which the behavior of a given role incumbent administrator corresponds to a given set of role expectations impinging upon him ... Thus, operationally,

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effectiveness may be defined as the congruence of the behavior and expectations.  

Administrative effectiveness has been evaluated by various methods in which numerous criteria were used. Schutz stated that "Investigations into criteria of effectiveness often seek the single best criterion. Examination of the various administrative situations suggests that this search may be fruitless." He purported that, in given situations, different criteria are used to determine administrative effectiveness.

The American Association of School Administrators has stated that "the expectations of the principal and the responsibilities to be given primary emphasis vary with the times and the referent groups".  

The California Association of Secondary School Administrators' Committee for the Development of Standards for Performance for Secondary School principals developed a device for evaluating the services of a secondary school principal. The committee identified four criteria for evaluation as follows:

1. Relationships: with the community; with the teachers; with the pupil;

2. Personal Characteristics: exemplifies the highest character and citizenship;

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3. Professional Qualifications: has proper credentials and understands the problems, processes, and techniques of administration.

4. Specific administrative skills: supervision of instruction—assistance to staff; curriculum; guidance and counseling; business administration—gets reasonable value for money spent.7

Halpin also stated that, "The Ultimate criteria of administrative effectiveness should be expressed in terms of group or organization achievement, in respect to the change in the organization's accomplishments that can be attributed to the behavior of the administrator."8 He developed a paradigm that attempts to empirically determine the administrator's effectiveness by focusing "... upon the behavior of administrators rather than upon either administrative behavior or the totality referred to as administration."9 Through the use of the paradigm, task variables are isolated, the administrator's behavior is observed, and the organization's achievement is measured.

Gibb concluded in his study that, "The effectiveness of the role depends upon the functional relation between the individual attributes of the man and the specific goal of the group at any moment."10


9 Ibid., p. 159.

Guba and Bidwell related the following observations about the principal's role and his effectiveness:

... a given school may be viewed as a social institution which consists structurally in a system of roles. A "role" may be defined as a set of complementary behavioral expectations which relate the role incumbent to other individuals (also role incumbents) in the situation. Within an institution, the system of roles should be so organized that behaviors attached to each role are mutually consistent and are maximally productive for the goals of the enterprise. Thus, within a school, teacher and principal are in a complementary role relationship. Each holds role expectations which serve to define the behavior of the other; each perceives and evaluates the behavior of the other; and each sanctions, positively or negatively, the observed behavior of the other.11

The observations were summarized when they stated:

When the principal's behavior is congruent with the teacher's expectations for his role, the principal is perceived by the teacher to be effective.12

Effectiveness ratings are usually based on the behavior of the individual being rated. In the Getzels-Guba formulation, however, behavior alone is insufficient. The criterion must be behavior relative to the expectations held by the rater. Consequently the same behavior may be labeled "effective" and "ineffective" simultaneously as a result of different expectations held by different persons. As an example, the principal's behavior may be rated highly effective by the superintendent, but at the same time be rated highly ineffective by the teachers.13

11 Guba and Bidwell, op. cit., p. 8.
12 Ibid., p. 8.
There were many other educators and researchers who tried to set up the criteria to evaluate and to find out the effectiveness of school principals.

McAboy developed a rating sheet for elementary school principals which could be used by the teachers as well as by the superintendent, supervisor and the principal himself, to improve the effectiveness of school principals. The instrument consisted of four major fields in which an effective school principal must be active, constructive, and understanding. They are 1) pupil relationship; 2) teacher relationship; 3) community relationship; and 4) superintendent or central office relationship.¹⁴

Briggs developed a self-rating scale for school principals. This rating scale was chiefly for a school principal to use when he wished to check himself, to see what extent he was meeting the challenges that confronted him, whether he had realized their existence or not, to direct his energies to those problems that are most important, and from time to time measure his growth in professional effectiveness. This instrument consisted of five broad areas; 1) personal qualities, 2) personal relationships, 3) professional training and cultural development, 4) supervision, and 5) organization and administration.¹⁵


Kuenzli developed an evaluation form which teachers could use to indicate their beliefs concerning the effectiveness of school principals.\(^\text{16}\)

Keesler developed a self-rating scale which could be used by school building administrators for stimulating critical self-analysis and improvement in effectiveness as principals. The instrument consisted of the following five broad areas: 1) supervision of instruction; 2) public relations; 3) business management; 4) professional characteristics; and 5) personality.\(^\text{17}\)

Rousseau used the Perception of Administrative Interaction Questionnaire (P.A.I.Q.), developed by William C. Schutz,\(^\text{18}\) for his study related to administrative effectiveness under academic training and educational experience variables, to determine the administrative effectiveness of elementary school principals in the state of Oregon. The P.A.I.Q. was administered to teachers to ascertain their perceptions of their principals in four areas: administrative decision-making, communications, general administrative behavior, and educational leadership. He determined that the principals with

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mean scores, total for the four scales of the P.A.I.Q., in the upper forty percent were assigned to the "high success" category, while the ones with mean scores in the lower forty percent were assigned to the "low success" category. The middle twenty percent were used to separate the two categories.

Dellinger\textsuperscript{20} used the same instrument in the same manner, to determine the administrative effectiveness of junior and senior secondary school principals in the state of Colorado. He determined that the principals, whose mean score total for the four scales of the P.A.I.Q. are one standard deviation or more above the mean of the total number of principals in the sample, exhibited high effectiveness of administrative performance, while the ones whose mean scores are one standard deviation or more below the mean of the total number of principals, exhibited low effectiveness of administrative performance.

When one speaks of perception, it indicates that various people may view an individual in different ways. That is to say if several teachers are asked to give their perception of a principal's effectiveness, it is quite possible, indeed quite probable, that the perceptions of the principal's effectiveness may be reported in varying degrees of agreement relative to the principal's effectiveness. That is to say, some teachers may view the principal to be effective while some may view the principal to be less effective. This could indicate that perception of the principal's performance is based upon the teacher's

values rather than an objective evaluation of the principal's effectiveness.

Based on these studies, it may be concluded that the effectiveness of any administrator is situational. That is to say results may depend upon who is doing the evaluation, the evaluator's expectations for the administrator's role, and the criteria used for evaluation. Effectiveness or perceived affectiveness appears to differ from individual and from group to group of evaluators. An individual administrator may be considered effective by his superordinates according to one set of criteria and at the same time ineffective by his subordinates according to an entirely different set of criteria.

Effectiveness Must Be Learned

In the opinion of Drucker:

If effectiveness were a gift people were born with, the way they were born with a gift for music or an eye for painting, we would be in bad shape. For we know that only a small minority is born with great gifts in any one of these areas.21

He also stated that, "Effectiveness . . . is a habit; that is, a complex of practices. And practices can always be learned."22 Based upon Drucker's observations, it can be concluded that effectiveness does not come with a birth certificate, but it can be acquired through the right practices and exercises. If anyone wants to be an effective administrator, manager, or whatever, he must practice and practice to


22 Ibid., p. 23.
improve his ability to get the right things done. That is, he is learning to be an effective administrator.

Drucker presented four rules of effectiveness that the school principal should learn, as follows:

1. The effective administrator thinks through what the really important contributions are which only he can make—and makes sure he makes them.

2. The effective administrator knows where his time goes and where it should go.

3. The effective administrator sets priorities and abides by his priority decision.

4. The effective administrator builds on strength, and especially on the strength of people.23

Effectiveness of the Secondary School Principal's Role Needs to be Perceived by the School Teachers

The role of leadership is a complex role with a myriad of variables interacting one with the other. For example, the leader's concept of his role, and the expectations of the group with regard to his role seem to be critical. When the expectations of the group are congruent to the situation and coincide with the leader's expectations of his role, the opportunities for effective leadership are good.

Though it is difficult to assign a relative value to each of the many roles of the secondary school principal, his actions perceived by the staff personnel will most likely bring the greatest rewards in terms of satisfaction, administrative effectiveness, and recognition.

Chase mentioned the advantages of teachers' perception to the

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administrative effectiveness of school principals as follows:

1. There is an exceedingly close relationship between teachers' evaluation of the leadership given by administrative and supervisory officers and the extent of their satisfaction in working in a given school or school system.

2. Teachers' evaluations of leadership are determined largely by the degree to which leaders conform to expected roles.

3. Teachers' expectations with respect to the roles of leaders arise from their own needs, their basic concepts of the respective roles of teachers, administrators, and supervisors, and their response to leadership past and present.

4. Professional leaders need to understand the expectations of teachers in order to bring about effective group action.24

An attempt to answer why the effectiveness of the secondary school principals' role needs to be perceived by school teachers, could be derived from Gaslin's article as follows:

1. Any attempt to measure staff perceptions of administrative performance provides the principals with readings on staff feelings and, if the perception is conducted repeatedly, how these feelings change over time.

2. By submitting to an evaluation by teaching staff, the principals will establish credibility with the teachers, public, and superiors within the area administrative hierarchy. It is a demonstration of confidence by the school principals in their own ability as instructional leaders and/or building managers.

3. If the perception is well-conceived, thoughtfully conducted, and conscientiously accepted, it should result in improvement of the school principals' administrative performance.25


Depending on specific situations, the perception can also provide those being evaluated with specific information on staff expectations of the school principals.

Traits, Qualities, Personal Characteristics and Behavior of Effective School Principals

An early approach to the study of leadership was based upon the belief that effective leadership was determined to a great degree by the traits or characteristics of people. It was thought that human beings could be divided into leaders and followers, and that the leaders must possess certain qualities not possessed by others. Lipham, in discussing this approach to the study of leadership, stated that:

Attempts to substantiate these beliefs were based upon studies which were focused on the identification of psychological constructs required for effective leadership.26

Success of the personal qualities approach depended upon being able to identify a trait of persons which affected behavior and then to establish its relationship to administrative behavior. Pierce and Merrill cited the following three assumptions which were basic to this method of analyzing behavior:

1. It was assumed that specific elements of behavior could be isolated and examined as entities within themselves.

2. It was assumed that personal elements or factors of behavior act with such a degree on each other that their impact can be measured and their effect predicted.

3. It was assumed that the nature of the influence or behavior of a particular trait was predictable within limitations.  

Personal traits, qualities, characteristics, and behavior of effective school principals could be identified and briefly described as follows:

Traits

Although the trait approach is particularly discredited today, there is a considerable body of research showing that leaders do have in common certain very general traits. In a comprehensive survey made by Stogdill, the most commonly identified so-called leadership traits were listed as (1) physical and constitutional factors (height, weight, physique, and appearance); (2) intelligence; (3) self-confidence; (4) sociability; (5) will (initiative, persistence and ambition); (6) dominance; and (7) surgency (talkativeness, enthusiasm, alertness, and originality).  

Shannon, after reviewing the biographies of 419 successful educators, reported the top 16 traits which were found most frequently among successful and effective school administrators. They were 1) leadership, magnetism, ability to stimulate others; 2) Intelligence, adaptability, versatility, resourcefulness, insight, good memory; 3) progressiveness, professional up-to-dateness; 4) reverence,


religiousness; 5) planning or organizing ability; 6) activeness, energeticness, vigorousness; 7) expressiveness in writing (convincingness, clearness); 8) vision, foresight; 9) industriousness, perserverance, persistence, diligence, dispatch; 10) courage, decision; 11) oral expressiveness (fluency, enunciation); 12) alertness, attentiveness, sensitiveness to problems; 13) creativeness, ingenuity, originality, imagination; 14) forcefulness, resoluteness, purposefulness; 15) altruism, considerateness, fairness, hopefulness, sympathy, appreciativeness; and 16) enthusiasm, zeal. 29

Flaherty concluded that the leader seems to excel in intelligence, scholarship, dependability in exercising responsibility, activity, and social participation, and socio-economic status. 30

Quality

Michaels, in citing the needs of schools, listed ten basic qualities needed by a principal in order to function effectively as follows:

1. Abiding faith in, and conviction of, the importance of education in a democratic society.
2. Superior intellectual capacity.
3. High degree of social intelligence.
4. Initiative, resourcefulness, and inventiveness.
5. Cooperative attitude—a desire to develop power in others rather than to exercise power over them.

6. Personal attractiveness.

7. Drive--the ability to work hard persistently toward desirable objective.

8. Physical and mental health--vigor, stamina, and emotional stability.

9. High moral character and personal integrity.

10. Sound judgement and common sense.  

Edmonson listed eight qualities which prospective secondary school principal should possess as follows: 1) culture, 2) resourcefulness and vision, 3) administrative ability, 4) ability to stimulate others, 5) interest in people, 6) scholarship, 7) professional knowledge, and 8) ideals and professional spirit.  

Eikenberry, as the result of his survey, grouped personal qualifications of secondary school principals into the following four broad areas: 1) compelling philosophy of education, 2) demonstrated capacity for leadership, 3) understanding of democratic principles and processes of secondary education, and 4) personal traits of the effective principal. He also cited that there were certain traits that were so universally associated with the effective or successful principals that they should receive at least some special recognition. Those traits were: 1) character, 2) citizenship, 3) maturity, 4) ability to work

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in harmony with others, 5) physical and mental health, and 6) courage and independence.\textsuperscript{33}

According to Conant, personal qualities that are essential to the effective leader in public education are intelligence, honesty, and devotion.\textsuperscript{34}

Characteristics

"The characteristics of the effective leader in education include a willing acceptance of an area of responsibility", stated Snipes.\textsuperscript{35} He also remarked that "the good leader acknowledges limits to his authority, responsibility, and control, and he delegates actions."

Reavis revealed that the effective and successful school executive should rate high in the following characteristics: 1) unselfish motivation, 2) scholarly ability, 3) industry, 4) ability to get along with people, and 5) executive capacity.\textsuperscript{36}

Jenkins' study reported twenty-four characteristics of the effective secondary school principal. The first ten were identified as follows:

1. He is thoroughly trained as a teacher and supervisor and actively interested in improving himself educationally.

\begin{flushleft}


\textsuperscript{35} Ibid., pp. 152-156.

\end{flushleft}
2. He is interested in the teaching performance and growth of all his faculty and the effects of their instruction on the pupils.

3. He possesses the ability to cause the school to run smoothly.

4. He inspires confidence in his faculty and causes them to desire to study problems that will make for a better school.

5. He is easily approachable by faculty and students.

6. He is sympathetic toward and earnestly tries to understand the problems of each department as well as their relationship to each other.

7. He tries to facilitate the professional growth of all deserving faculty members even if it may mean their leaving his school.

8. He considers himself a friend and co-worker of each teacher and not boss.

9. He is always kind, courteous, considerate, honest, fair, impartial, sympathetic, well groomed, and free from annoying mannerisms.

10. He is self-reliant and confident in his ability to do a good job. 37

Goldhammer and his colleagues cited the characteristics of school principal in this fashion:

... most of them had sincere faith in children. And they had an ability to work effectively with people to secure their cooperation. They were aggressive in securing recognition of the needs of their school, and as such were enthusiastic as principals, accepting their responsibilities as those of a mission rather than as those of a job. Finally, they were committed to education, and especially capable of distinguishing between long and short term educational goals. 38


Magnuson studied the professional and personal characteristics of successful school business managers, and reported the following:\(^{39}\)

<table>
<thead>
<tr>
<th>Professional</th>
<th>Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communicates well with others</td>
<td>1. Just, fair</td>
</tr>
<tr>
<td>2. Knowledgeable in the field</td>
<td>2. Faithful, loyal</td>
</tr>
<tr>
<td>3. Delegates</td>
<td>3. Broad knowledge</td>
</tr>
<tr>
<td>4. Works well with others</td>
<td>4. Poised, even tempered</td>
</tr>
<tr>
<td>5. Involves staff in decisions</td>
<td>5. Honest, sincere</td>
</tr>
<tr>
<td>6. Approachable and available</td>
<td>6. Friendly</td>
</tr>
<tr>
<td>7. Interested in others</td>
<td>7. Sense of humor</td>
</tr>
<tr>
<td>8. Plans and organizes</td>
<td>8. Open-minded</td>
</tr>
</tbody>
</table>

**Behavior**

It is known that education is a behavioral science which blends the social sciences, psychology, and the like. School administrators, in their ordinary, daily tasks at one moment play the role of the sociologist, the psychologist, and the scientist. Awareness of behavioral concepts seems to be one of the most important things for the effective school administrator. Of course, it is administrative tools which enable the school principals to become more aware of

themselves, of their abilities and limitations; to enhance the administrative skills in the various roles which the school principals have to assume; and can help the school principals to achieve greater insight and empathy. Sachs stated in his book that:

... the tools of the behavioral sciences, if understood in a sophisticated fashion and properly used, will lead the administrator to more insightful approaches to his role and how he operates within it.40

Sternloff analyzed and developed basic general behaviors of the effective school administrators. A sample of those basic general behaviors of the effective school administrators are listed as follows:

1. Interprets adequately the status, needs, problems, policies, and plans of the school.
2. Provides pertinent information concerning school problems, and suspends judgment until the pertinent facts have been examined.
3. Conducts all school affairs in an honest, ethical, and tactful manner.
4. Utilizes consultants and specialists outside the school and cooperates with them in solving educational problems.
5. Encourages all persons who will be affected to participate in policy development, and stimulates cooperative planning.
6. Administers discipline effectively.
7. Deals impartially and equitably with all individuals and groups.
8. Shows a sincere interest in the welfare of school personnel.
9. Organizes citizen or parent advisory groups, and cooperates with them in study and solution of school problems.

10. Willingly devotes extra time to important school affairs.\textsuperscript{41}

Medsker studied and described the behaviors of the effective school principal which were perceived by teachers as follows:

1. The principal provides leadership for teachers; (a) He builds teacher morale and unity, (b) He evaluates teacher performance as a basis of ungrading, and generally gives help to teachers, (c) He shares decisions and responsibilities with teachers.

2. The principal works with and for children; (a) He maintains discipline in the school, working with parents on the solution of discipline problems. He maintains dignity and consistency in the discipline process.

3. The principal maintains constructive relationships with the community.

4. The principal provides for effective administration of the school program.

5. The principal works effectively with individual parents.\textsuperscript{42}

Smith studied the effective and ineffective behavior of secondary school principals. He reported that effective school principals should exhibit the following behaviors:

1. Develop positive relationships with superintendents and Board of Education.

2. Work and plan cooperatively with their staffs.

3. Facilitate mutual communications and understandings between the home and the school.

4. Stimulate personal and professional growth and development of their staffs.


5. Develop an emotion climate within their schools which fosters security and self-respect for the staff members.


7. Incorporate the combined judgment of those available and those concerned into effective action.

8. Conduct themselves in a professional manner.

9. Build organization, unity, and cooperation within their staffs.

10. Work toward the continuous development and improvement of the educational program.

11. Promote positive working relationships with patrons and parent-community organizations.

12. Provide instructional leadership in their schools.

13. Demonstrate competence and administrative ability in school organization.

14. Maintain desirable student behavior patterns and resolve individual and group discipline problems.

15. Relate successfully to students.¹

There are many other educators and researchers who have studied traits, qualities, personal characteristics, and behaviors of effective school principals. It seems evident that there is no single trait theory to determine the effectiveness of leadership. Haimann criticized trait theory in his book when he stated:

Although the trait approach is partially discredited today, there is a considerable body of research showing that leaders do have in common certain very general characteristics. Some of these are physical and nervous energy, a sense of purpose and direction, enthusiasm, friendliness and affection, communication ability, integrity, technical mastery, decisiveness, intelligence, teaching skill, faith, and sensitivity to group needs. Such traits are found

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interwoven in the personality of the leader, but they are always considered relative to the group.44

Some writers have investigated the effect of personality or personal traits upon leadership. Joy, in a discussion of effective educational leaders, remarked that, "Leaders need imagination, courage, creativity, and a desire to improve teaching conditions and educational opportunities."45 Murdy wrote that, "Personal factors tend to have a greater influence upon working relationship between school administrators than do administrative techniques."46

Pierce and Merrill reviewed research relative to specific traits and attributes which, supposedly, influence leader behavior. It was concluded that those characteristics and traits which were related significantly to leader behavior were more closely associated with the personality of the leader than with his position, and that a number of characteristics or traits seemed to be required for leaders in most situations. It was indicated that these traits varied in quality and quantity with the individual and with the leadership situation. It was also indicated that the possession of these traits did not guarantee successful leadership.47


Role of Secondary School Principals

The secondary-school principal's role is usually defined in terms of tasks, responsibilities, or duties; sometimes it is defined in terms of the administrative process. A close examination of this role, however, reveals that it also may be defined in terms of certain crucial, normative behavior.

Lipham, using a multi-faceted approach, sought to identify, measure, and analyze certain personal variables related to effective behavior in the school principal's role. He defined the school principal's role in terms of certain normative behavior traits as follows:

The effective principal . . . may be expected to exert himself energetically; to achieve and to improve his performance; to strive for higher status in the profession and in society in general; to relate himself successfully to other people; to view the future with confidence, the present with understanding, and the past with satisfaction; and to adjust well to frustration, irritations, confusions, and criticism in pressure situations. It, therefore, may be assumed that principals having a basic personality structure which tends to elicit the aforementioned behaviors, will suffer less role-personality conflict, and will be more effective than principals whose personal needs are incongruent with these expected behaviors.48

Levinson pointed out that the term "role" has been encumbered with at least three operational and quite separate meanings in the literature:

1. Organizational role-demands, a sociological concept that refers to supposed requirements of the organization or social system.

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2. Personal role-definitions, a psychological concept that refers to the individual's cognitive responses to the situation in which he finds himself, and which, thus, becomes a linking concept between personality and social structures.

3. Actual role-behavior, a psychological concept which refers to the individual's behavioral response to the situation in which he finds himself.49

Stogdill, following Talcott Parson's general concept of role, called attention to the major dimensions of role expectations. He suggested that expectations indicate a readiness for reinforcement and he regarded them as functions of: (1) motivation and attention, (2) the estimated level of desirability of a possible outcome, and (3) the estimated probability of an outcome.50

In their review of role analysis, Dreeben and Gross found three fundamental ideas occur consistently in most conceptualizations: persons "... (1) in social location, (2) behave, (3) with reference to expectations."51 To assess a role, six elements seemed to be necessary. They were position, expectations, role, role definers, role behavior, and patterns of role behavior.52 Role was defined as a set of expectations, a set of evaluative standards applied to the incumbent of a particular position.53 A single action of a role incumbent with


51 Robert Dreeben, and Neal C. Gross, The Role Behavior of School Principals. Cambridge, Massachusetts; Graduate School of Education, Harvard University, 1965, p. 2-2. (Chapter 2)

52 Ibid., p. 2-2.

53 Ibid., p. 2-4.
reference to an expectation was looked upon as a unit of role behavior. A set of actions was looked upon as a role behavior pattern.

The principalship is an important position in the organizational scheme of schools. Principals are the subject of schools' inquire because, as educational administrators, they are responsible for the management of schools; they are held accountable for the efficiency and effectiveness of their organizations. They have a great number of responsibilities; they are supposed to:

1. Orient new teachers by making them aware of their formally defined rights and obligations.

2. See that all staff members carry out their teaching and extra-curricular responsibilities at least at a minimum level of satisfactory performance.

3. Cope with problems arising out of personal misunderstandings and conflicts.

4. Deal with problems of deviant behavior that so often arise out of rationally designed efforts to run a stable organization.

5. Implement policy decisions made at higher levels in the school system.

6. Resolve the conflicts presented by teachers and parents who are disgruntled or apathetic.

7. Interpret the school program to the community served.

8. Assess the capabilities of teachers.\textsuperscript{54}

In short, principals occupy a strategic managerial position at the lower levels of the school system bureaucracy. The principal is the administrative official with the closest contact to the core functions of school—teaching and learning.

It has been shown in several studies that educational theorists, in dealing with the role of the secondary school principal, by ways of empiricism or deductive logic, considered an elaborate, detailed description of the various roles and functions he is required and expected to fulfill. These tasks, as a whole, follow a relatively rigid and uniform pattern, varying in different phases only in emphasis.

The school principal's role analysis could be illustrated by job criteria prepared by the Southern States Cooperative Program in Education Administration, and reported in "Better Teaching in School Administration". They were categorized in the following areas:

1. Instruction and curriculum development
2. Pupil personnel
3. Community school leadership
4. Staff personnel
5. School plant
6. Organization and structure
7. School finance and business management

Within these major categories fifty to sixty sub-categories were identified and elaborated. The high school principal was thought to be primarily occupied with tasks or roles that lead to the improvement of instruction.

The University Council for Educational Administration (UCEA) has identified instructional materials concerned with the principal's role

as follows:

1. Responding to social change
2. Evaluating school processes and products
3. Administering and improving the instructional program
4. Making effective decisions
5. Preparing the organization for effective response to change
6. Achieving effective human relations and morale

The National Association of Secondary School Principal presented duties of the school principals as follows:

1. Scheduling
2. Budgeting
3. Working with community groups
4. Motivating the staff
5. Working with students
6. Providing instructional leadership
7. Supervising classrooms
8. Attending meetings
9. Communicating with various publics
10. Developing transportation routes
11. Developing rules and regulations for:
   a. Attendance
   b. Health and safety
   c. Student placement
   d. Reporting to parents
   e. Supplies

Adapted from Jack A. Culbertson, Curtis Henson, and Ruel Morrison, eds., Performance Objectives for School Principals, Berkeley, California; McCutchan, 1974.
12. Providing "proper" image

Large amounts of current literature reveal that the school principal today faces many difficult and unusual problems. This results in significant demands of new roles for the future secondary school principals. Tantimedh, studied the expected role for the secondary school principal in 1980. His findings indicated that the secondary principal will be expected to be involved in the following functional areas:

1. **Staff Personnel Development** The high school principal in 1980 will:
   a. Request his staff to evaluate his performance as a principal more regularly.
   b. Upgrade his teachers' professional ability by providing more consultants and in-service programs.

2. **Student Personnel Development** The high school principal in 1980 will:
   a. Have less authority in making decisions pertaining to student disciplinary problems.
   b. Take a more active part in communicating with student governance committees.
   c. Encourage more students to work outside the school, according to their individual needs.
   d. Increasingly authorize student representatives to vote in curriculum and teaching improvements and changes.
   e. Have less authority in negotiating with students in case of student unrest.
   f. Spend more time visiting parents and discussing student problems with them.


g. Be responsible for providing a more creative environment for students.

3. School-Community Relations. The high school principal in 1980 will:

a. Communicate more often with public and private organizations within the community.

b. Have less authority in controlling the use of school plant and facilities by people outside the school.

c. Keep the community better informed of changes and improvements in the school.

d. Spend more time participating in various activities arranged by people in the community.

e. Be more responsible for providing and encouraging parent-teacher conferences.

f. Take a more active role in political campaigns within the community.

g. Have an expanded role due to changes needed in education and the public tendency to resist change.

h. Seek more help from and cooperation of people in the community in constantly evaluating school programs and activities.

4. Curriculum and Instructional Development. The high school principal in 1980 will:

a. Spend a greater share of his on-the-job time working with teachers on the improvement of instructional programs.

b. Consider students a more viable source of ideas for changing the instructional programs.

c. Be better versed and up-to-date in curriculum developments and instructional technology.

d. Give more assistance to teachers in coping with successive rapid changes and anticipating future change.

e. Make more use of his staff in planning the courses and activities necessary for the successful operations of the school.

f. Increasingly involve students in curriculum construction and improvement.

g. Work more cooperatively with other schools.

5. Funds, Facilities, and Business Management. The high school principal in 1980 will:
a. Be more responsible for finding information about the availability of funds, equipment, materials necessary to provide the most effective learning for his students.

b. Consult more with the superintendent about facilities for school.

c. Hire more personnel to work in the management of finances and facilities.

Four Dimensions of the Secondary School Principal's Administrative Role

The administrative role of the school principal consists of many descriptive details and can be grouped into many dimensions depending upon the eyes of each individual writer, reader, or the one who associates closely with the school principal. This particular study was designed to deal with the following four dimensions: administrative decision-making, communication, general administrative behavior, and educational leadership of the secondary school principal. Each of these dimensions would be briefly described as follows:

Administrative Decision-Making

Decision-making is defined as:

... a scientific process, a method whereby a situation is studied and evaluated, the problems are identified, and alternative solutions to the problems are considered before a course of action with intent to execute it is formulated.59

Typical decisions which the school administrator must make can be classified into three categories: (1) routine decision-making, (2) emergency decision-making, and (3) problem-solving type of

School administrators make many decisions related to these three types of decision-making during the courses of a day.

While the principal's role may be undergoing some redefinition, the principal remains a significant decision-maker in the educational milieu. In a real sense, the decision-making process should be based on organizational goals, objectives and missions. In order to make decisions that will reflect not only organizational considerations, but also the concerns of individuals within the organization as well, the leader would be well advised to obtain input from faculty, students, staff, community, and the like. Such input will ensure that the decision will be an effective one in terms of the organization, the people within it, and those whom it serves.

Griffiths presented the steps of decision-making in school as follows:

1. Recognize, define, and limit the problem
2. Analyze and evaluate the problem
3. Establish criteria or standards by which solution will be evaluated or judged as acceptable and adequate to the need.
4. Collect data
5. Formulate and select the preferred solution as solutions. Test them in advance.


6. Put into effect the preferred solution.

   a. Program the solution
   b. Control activities in the program  
   c. Evaluate the results and the process  

The processes of decision-making are so vital to the understanding of the principalship and the schools that significant progress has been made in their theoretical analysis. Simon suggested that "the understanding of the application of administrative principles is to be obtained by analyzing the administrative process in terms of decisions." 

Decision-making is one of several competencies the principal should possess. In a synthesis of the competency based approach to the analysis of the principalship, Abbott identified four decision-making skills:

1. Differentiating among types of decisions.
2. Determining the amount and type of information needed to reach a decision.
3. Determining the appropriate involvement of other people in reaching decisions establishing priorities for action.
4. Anticipating both intended and unintended consequences of decisions.

He also concluded that these skills contribute to the effectiveness of the school principal. 

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Communication

Communication refers to "the interchange of thoughts and opinions between and among individuals and groups through oral and written means of expression". Communication plays an important part in the job of school principals, supervisors, managers, and administrators. Shartle and Guetzkow in their study of leadership concluded:

Communications appear to be one of the most important factors in administrative behavior. Where more communications are reported present, there is less discrepancy between description of the administrator and description of ideal behavior as reported by subordinates.

The principal is the chief interpreter of official policy of the system for his staff and for the school community. Today's principal must be able and willing to communicate with students, parents, community organizations, the business community, and the media. He should be effective in both oral and written communications. In oral communication, the principal should be an effective speaker, should be able to communicate ideas effectively, and must be a sympathetic listener. In written communications, the principal should be able to communicate information, messages, personal greetings, and routine business effectively.

As mentioned above, the principal is at the nerve center of a communication network that has linkages with students, teachers,

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parents, concerned citizens, and system administrators. To communicate with these various publics is not simple for the school principal. It requires him to be aware of different techniques, strategies, the nature of people and their interests, the society or community and some points of interference in communication.

In dealing with students the principal must show real concern for their educational experience, sincerely involving them in such areas as curriculum, discipline policy, and student government. The principal needs to communicate with students from a new stance of equality, mutuality, and shared responsibility. In communicating with parents and concerned citizens, the principal, again, must relate educational concerns and needs at a different level and from a different reference point. He has to learn to explain, negotiate, and if necessary confront.

To teachers the principal has to communicate the new collegiality which is the hallmark of the knowledge society. He has to understand, and communicate that he understands, the fact that in the specialized society subordinate-superordinate relationships do not seem to be as predominate now as they once were. He has to share power and help teachers actively participate in decision-making in school. Yet, he

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70 Ibid., p. 108.
has to lead, to build teacher morale, and to create a desirable organizational climate in school.\textsuperscript{71}

The same stance might hold for the principal's communication with the superintendent. He has to relate with the superintendent as a colleague, not as a subordinate; as a field commander who knows best about what is happening on the firing line. He must simultaneously interpret school needs to the superintendent and interpret educational policy to teachers, students, parents, citizens, and community.\textsuperscript{72}

The principal has a very important public relations function in dealing with media. He must develop skills that will enable him to meet directly with reporters and others in a forthright manner. He must be honest while also remembering his responsibility to students, staff, community, and to the school system he serves.\textsuperscript{73}

The role of the school principal in facilitating communication within an organization is a crucial one. Clark found in a study of the administrative behavior of school principals that the more effective principals initiated and had more communication with staff members than did the less effective principals, and that more of it was face-to-face communication.\textsuperscript{74}

Moser stated that:

Without excellent communication, the educational enterprise becomes a shambles . . . without an effective internal


\textsuperscript{72} Ibid, p. 109.

\textsuperscript{73} Ruffin, Jr., Op. cit., p. 37.

\textsuperscript{74} Dean O. Clark, "Critical Areas in the Administrative Behavior of High School Principals" (Unpublished Doctoral Dissertation, The Ohio State University, 1959).
communication plan there would be no way to: (a) develop common purposes, (b) coordinate efforts, (c) influence behavior, (d) get feedback on how things are going, and (e) establish mutuality.75

General Administrative Behavior

Administrative behavior can be conceived in broad terms. Included within the meaning of this term are job demands, situational influences, and processes employed as well as the overt acts of the administrator.76

Ramseyer and his staffs of the School-Community Development Study Project summarized and defined the concept as follows:

Administrative behavior as it affects educational development in a community is a specialized branch of human behavior. It is concerned with the manner in which individuals and groups, working singly and collectively under the stimulus of an appointed leader, create and develop the educational opportunities characteristic of their community.77

Administrative behavior has been studied by many researchers—sociologists, psychologists, and educators. Much of the research concerning the behavior of leaders in the field of education derives from concepts developed at the Ohio State University. Some of them have been mentioned earlier in this chapter from page 71 through 75. Additional studies are presented as follow:


76 Adapted from Roald F. Campbell, and Russell T. Gregg, eds., Administrative Behavior in Education. (New York, 1957), p. xi.

77 John A. Ramseyer, Lewis E. Harris, Millard Z. Pond, and Howard Wakefield, Factors Affecting Educational Administration, Monograph No. 2. The Ohio State University, 1955, p. 7.
The Leader Behavior Description Questionnaire (LBDQ) which was developed by the Ohio State University identified two major dimensions of leadership or administrative behavior; "Consideration" and "Initiating Structure-in-Interaction" which could be defined as follows:

Consideration refers to behavior that reflects friendship, mutual trust, respect, and warmth in the relationship between leader and group members.

Initiating Structure-in-Interaction refers to the leader's behavior in delineating the relationship between himself and the members of his group, and in endeavoring to establish well-defined patterns of organization, channels of communication, and ways of getting a job done.

The School-Community Development Study Project identified nine areas of critical behavior of educational administrators as follows: (1) setting goals, (2) making policy, (3) determining roles, (4) appraising effectiveness, (5) coordinating administrative function and structure, (6) working with community leadership to promote improvement, (7) using the educational resources of the community, (8) involving people, and (9) communicating. These nine areas were identified for the purpose of classifying observations of administrative behavior with respect to inter-personal and environmental factors that have been found to make a difference in administrator behavior.

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Jacobs analyzed a sample of Michigan secondary school principals to ascertain whether the leadership behavior of principals of schools high in educational innovation differed from that of principals of schools low in innovation. It was discovered that the principals in schools high in innovation received significantly higher ratings on the following leadership behavior: (1) initiating structure, (2) predictive accuracy, (3) representation, (4) integration, (5) persuasiveness, and (6) consideration. Jacobs concluded that, "One of the important factors in instituting educational change is the leadership behavior of the principal."

The principal is the chief administrative officer of an attendance unit in a school system. The principal who wishes to encourage innovation in the school would do well to assess his behavior as a leader of his faculty, students, non-teaching staff, and superordinates. He must be aware of the way he sees himself and have a thorough understanding of how his behavior affects others. Different people have different motivations. Some of these motivations may be antithetical to the educational process, the group or the institution. It is, therefore, necessary that the principal understand his administrative behavior as well as organizational participants' behavior. Further, the principal must be concerned with students, teachers, and all people as individuals, and as human beings. If the principals' administrative behavior is accepted and is perceived as satisfactory by his

82 Ibid., p. 17.
subordinates, superordinates, and others, and if he is able to get along well with these people, certainly, he should be considered as an effective principal.

Educational Leadership

Various definitions have been given to the concept of leadership. One is given by Tannenbaum and his colleagues, who state:

We define leadership as interpersonal influence, exercised in situation and directed through the communication process toward the attainment of a specified goal or goals.83

Gibb indicated that leadership is a key to moving an organization.

He stated that:

People must be led. People perform best under leaders who are creative, imaginative, and aggressive . . . under leaders who lead. It is the responsibility of the leader to marshal the forces of the organization, to stimulate effort, to capture the imagination, to inspire people, to coordinate efforts, and to serve as a model for sustained effort.84

One of the most comprehensive summaries of research and leaders in many fields of endeavor was made by Stogdill. He examined 124 studies on personality traits as they relate to leadership and concluded that:

A person does not become a leader by virtue of some combination of traits, but the pattern of personal characteristics of the leader must bear some relationship to the characteristics, activities, and goals of the followers. Thus, leadership must be conceived in term of interactions of variables which are in constant flux and change.85

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Maslow studied two types of leadership; the D-leader, and the B-leader. The B-leader demonstrated good leadership while the D-leader demonstrated coercion. He concluded that:

The B-leader is one who does what needs to be done. He does not need power over others in order to enhance his self-concept. His basic needs are satisfied; he approaches self-actualization; he takes pleasure in helping other people grow and self-actualize; he is a good follower.86

According to Maslow, leadership includes the group's process of selecting one of its members, based on his qualifications, to lead in accomplishing a specific task in addition to that member's efforts in helping the group complete the task. The leader's power consists of what the group voluntarily gives him for the specific situation. His achievement is considered the group's achievement, since all members see themselves as a unit while they solve a particular problem.

Bowers and Seashore, in their review of related research and literature, found four common dimensions of leadership which are very similar to Maslow's description of the B-leader. These four dimensions are: support, encouraging positive self-concept in others; interaction facilitation, encouraging group members to develop close relationship; goal emphasis, stimulating enthusiasm for goal achievement; and work facilitation, providing resources which help achieve goal attainment.87 These dimensions should be seriously considered by school administrators


because they imply that leadership should be assumed by the person in a given situation who can best help the group reach its goals. They should be considered as leadership tactics and behavior that make the school principal a more effective leader.

According to Lane, Corwin, and Monahan, leadership can be viewed from four different perspectives: 1) as personality traits; 2) as a set of functions; 3) as social relations; and 4) as a social process. 88

Educational leadership has been studied primarily from four main approaches: the man, the social setting, the tasks, and the process. 89 These approaches are very similar to Bowers' and Seashore's perspectives of leadership. Each of these approaches has been emphasized at different times. Singly none of these approaches adequately describes the principalship and the nature of secondary school administration. By using all of these approaches, the principalship can be described fairly accurately. The perspectives or approaches of leadership can be applied to the concepts of educational leadership as follows:

1) Educational leadership as a man with a set of personality traits. It implies that educational administrator is a man with a certain set of traits: dependability, friendliness, enthusiasm, forcefulness, intelligence, alertness, sociability, cooperation, initiative, and perseverance.

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Stogdill's leadership traits\(^90\) are fitted the personal characteristics desired of secondary school principals as follows: (1) intelligence, (2) good health, (3) self-confidence, (4) sociability, (5) consideration for others, (6) professionally minded, and (7) morally strong.\(^91\)

2) **Educational leadership as a set of functions or tasks.** The secondary school principal maintains a great number and variety of duties. He has certain managerial functions: formulating policy, implementing the policy, maintaining the school's functional autonomy.\(^92\)

An example of how lay persons, teachers, students, and administrators regard this important function is found in a study at Lehigh University in Pennsylvania. Based on an analysis of various statements from these sources, the first three duties of the secondary school principal were: (1) leadership in the professional improvement of the staff, (2) improving classroom instruction, and (3) building and improving the curriculum.\(^93\)

Recently, the National Association of Secondary School Principal listed twelve duties of the secondary school principal; these were mentioned earlier in this chapter on pages 80-81.


3) **Educational Leadership as social setting or social relations.** This category implies that the school principalship has been created under the demands made by groups of people. He must associate or have a social relationship with these groups on the basis of subordinate and superordinate status. He functions under rules and regulations of the groups' constitutions. His leadership must be shared—that means he is a leader in an organization (school) and a follower in another one expected by his superior to initiate ideas, maintain group norms, and act as final arbitrator of decisions, while his subordinates expect him to be humanitarian, objective, and considerate of their feelings.  

4) **Educational leadership as a process or a social process.** This concept implies that the school principal can be considered as being involved in a social interaction consisting of five elements: an agent, an inducement process, subordinates, induced behavior, and a particular objective or goal. The principalship is seen as the process by which an individual school principal induces his subordinate (e.g., teachers, custodians) to act in such a way as to reach a particular objective. According to this perspective, effective school leadership depends on the principal's ability to maintain his position, to initiate ideas, to command and support the interests of his subordinates.  

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95 Ibid., p. 22-23.
Experience of the School Principal

The experience factor for the secondary school principal could be divided into two aspects: teaching experience and administrative experience. These are defined below.

Teaching Experience. Secondary school principals have traditionally come from the ranks of classroom teachers, and it is likely that this trend will continue. Currently, in the United States, there is an argument concerning the question as to whether or not teaching experience is important to the selection or appointment of school principals. Many researchers and educators have attempted to study prior teaching experience as it relates to the administrative process. The results, however, seem to vary from time to time and place to place.

In 1959, Gross and Herriott reported a finding of the National Principalship Study which was conducted at Harvard University and concerned the teaching experience of school principals in 41 large American cities. Their conclusion was: "Neither type nor length of previous teaching experience influenced the leadership potential of principals".96

In 1965, Schutz studied a sample of 445 public school principals in the State of California to determine what factors were associated with administrative effectiveness. He found that principals who had

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extensive experience as classroom teachers made ineffective administrators.\(^97\)

In 1971, The National Education Association Research Division conducted a teacher opinion poll which asked a nationwide sample of public school teachers questions related to teaching experience of school principals. The poll indicated that the vast majority (96.1\%) of teachers believed that principals should have several years' experience as teachers before they become principals.\(^98\)

**Administrative Experience.** In the United States, the one who is qualified to be a secondary-school principal has to hold a certificate or license for the secondary-school principalship. There are several types of certificates which are issued by each state. Some types of certificates require a background of teaching experience. Some are issued which specify administrative experience as a background for the secondary-school principal. The minimum standard requirements (e.g., academic preparation, experiences) are contained in all types of certificates. The secondary-school principals are selected, promoted, and hired on the basis of their certificates. Jacobson, Logsdon, and Wiegman stated that, "Few principals attain their positions directly from vice-principalships".\(^99\) A reason found by Brown and Rentschler in

\(^{97}\) William C. Schutz, *Leaders in Schools*. Berkeley, California; The University of California, 1966. (Mimeographed)


their workshop study was that vice-principalships or assistant principalships are given as a reward to persons who are often not prepared to assume the principalship.  

However, the underlying assumption seems to be that school principals become more effective with additional administrative experience.

Rousseau studied the administrative effectiveness of school principals in the State of Oregon, and found that the principals who have a considerable amount of administrative experience tend to be more effective than less experienced principals.

In Thailand, according to the researcher's experience, teaching and administrative experience are very important requirements in consideration of promoting and appointing the school principals. All school principals must have at least two years of administrative experience as assistant to become a principal or school supervisor, and four years of teaching experience.

Training and Preparation of the School Principal

The success of an educational enterprise, as in any enterprise, depends to a high degree upon the quality of leadership in the

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Many factors are related to an educational institution's accomplishing its goals. One of these important factors is the quality of leadership provided by the principal. The literature establishes that effective leadership qualities of the principal can be developed through education and training. There is no question that the secondary school principalship demands that a person who occupies that position possess varied skills and knowledge. These skills and knowledge can be classified as technical-managerial, human-managerial, and speculative-creative.

It is still felt that academic preparation of school principals is the function of the universities. It is also very difficult to speak of administrator preparation programs in generalities because of the specific and unique aspects of the programs, courses, and individuals involved. Usually, the programs are typically concerned with individualization of the administrators, and with the competencies required for the tasks that administrators perform. For example, the National Conference of Professors of Educational Administration in the early 1950's developed a list of competencies with such headings as: development of school-community relations, the instructional program, organization techniques, and the development of personal qualities.

Culbertson listed such areas in decision making, communicating, change,
and morale as important competencies of administrators. 106 Gregg described the administrative processes as decision making, planning, organizing, communicating, influencing, coordinating, and evaluating. 107

McDonald, in his review of follow-up studies of graduates of programs in educational administration found that students view courses in finance, school law, school facilities, personnel administration, evaluating educational institutions, elementary school administration, and secondary school administration as being helpful. On the other hand, philosophy and research courses were generally considered by the graduates to be of little help. 108

The preparation programs for secondary school principals typically include a variety of courses and experiences. Nickerson recommended that preparation programs should include: (1) up-to-date knowledge of curriculum developments and instructional technology through acquaintance with the ramifications of the out-of-school social-economic milieu of the child, (2) human awareness or sensitivity training, (3) specialized preparation, different from that of researchers and


other administrators.\footnote{109}

In helping students become effective leaders of the secondary schools, in Nickerson's report, educational administration professors agree that principals should have skill and knowledge about:

1. Financial affairs of secondary schools
2. Legal aspects of secondary education
3. Research and evaluation
4. Instruction and curriculum
5. Human relations
6. Effective communications
7. Decision making
8. Learning environment
9. Negotiations
10. Social awareness
11. Change, innovation, and diffusion
12. Systems analysis for educational planning
13. Scheduling and school organization.\footnote{110}

Sizes of Schools Affect the Principals' Role Effectiveness

The literature seems to indicate that the size of schools is a factor which affects the nature of the principals' roles and


\footnote{110}{Ibid., p. 113.}
responsibilities. In larger schools, the principals' roles are complex and need to be more clearly defined than in smaller schools. The principal in a large school will be more concerned with development of his relationships with the administrative team, while the principal in a smaller school may be working more directly with teachers and non-academic personnel.

Keller's study revealed that:

As a rule, senior high-school principals have attained higher professional qualifications than those in junior high. Principals in larger schools were generally better prepared and less involved in classroom teaching than those in small schools.111

In Thailand, there are two organizational levels of secondary education: junior and junior-senior secondary schools. The special-grade principals administer the junior-senior secondary schools, while the fourth-grade principals administer the junior secondary schools. More detailed information concerning the organization of the Thai secondary-schools was reported in Section I of Chapter II.112

Sexes of the Principals Affect Role Effectiveness

A recent National Education Association research study showed that, although two-thirds of America's classroom teachers are women, only 13.5 percent of its elementary, junior high school, and senior high school principals, are women. Specifically, the report showed 19.6 percent of the elementary principals, 2.9 percent of the junior high


112 For more detailed explanation, see Section I, Chapter II, pp. 16-52.
principals, and 1.4 percent of the senior high principals are female. Among more than 13,000 district superintendents in the nation, only 65 are women. This indicates that only one-half of one percent of the superintendencies are occupied by females.\textsuperscript{113} It seems that the number of women administrators has declined significantly since World War II, despite such things as Title IX of the Civil Rights Act and an apparent overt effort to increase the overall number of women in leadership positions within the educational field.

Various explanations have been advanced for the decline in the numbers of women in the secondary school principalship. The most frequently given reasons are: 1) most women lack the apparent graduate education to qualify for the principalship; 2) few women desire to leave teaching for administration; 3) women must compete with men to obtain such positions; 4) women often lack the career tenure to qualify; 5) women lack the financial incentive to seek the principalship; 6) and they are considered to be inferior to men as administrators. The last reason suggests that the task of the secondary school principal is a masculine one and women are considered inadequate to the task. This premise assumes that men perform more appropriately as administrative leaders than do women.\textsuperscript{114}

The statistical figures and reasons mentioned pose many questions and arguments. One of the arguments could be whether or not women can


perform the principals' roles as well as men. The answer to the
question seems to be favorable toward women. Lyon and Saario
concluded in their study that:

Nothing . . . has convinced us that males are inherently
superior to females as educational administrators and we
view the defacto discrimination as wholly unjustifiable.115

Smith argued that:

I agree that men are, in general, physically stronger than
women, and that there is a physical toll taken on any active
high school principal. However, it is the mind, not just
the body, that our high schools need now, and a woman's mind
is the equal of a man's.116

Complete agreement on the question, however, was not found. Consider,
for example the following quote.

Absolutely no, women are weaker than men. Women do not want
responsibility, they cannot handle it, and they are too emotional.117

In Thailand, the proportion of female to male principals is
greater than that found in the United States. Hence, one of the stated
intentions of this study was to determine whether or not the Thai male
and female secondary-school principals are significantly different in
terms of their administrative performance.

115 Catherine D. Lyon, and Terry N. Saario, "Women in Public
Education: Sexual Discrimination in Promotions", Phi Delta Kappan,

116 Rosa A. Smith, "Women Administrators--Is the Price Too High?"
The Bulletin, The National Association of Secondary School Principals,

117 Barbra Zakrajsek, "An Alternative to Women's Lib: Obtaining
a Principalship", The Bulletin, The National Association of Secondary
Age of the Principals Affects
Role Effectiveness

Few studies have related the role conceptions of school principals to their age. A number of studies have indicated that older school principals tend to be more conservative in their view concerning teaching methods and techniques (Ryans, 1960). They tend to be less receptive to educational innovations (Ramer, 1968), a finding confirmed by Taylor (1969) in a study of headteachers’ attitudes.

Gross and Herriott reported that older principals provided less leadership than did younger principals. Gross and Herriott, Op. Cit., pp. 75-76.

Marquit found that older principals were less active than younger principals in supervising the performance of their teachers. Lawrence J. Marquit, "Perceptions of the Supervisory Behavior of Secondary School Principals in Selected School in New York State", (Unpublished Doctoral Dissertation, Syracuse University, 1967).

Cohen reported that older headteachers were found to exhibit less authoritarianism than younger headteachers. Further, he reported that older headteachers were less traditional than were the younger

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headteachers. Finally, Cohen found that older headteachers tended to be less concerned with supervising the work of their teaching staffs than were the younger headteachers.¹²³

Dellinger found in his study that older senior high-school principals performed their roles as well as the younger ones in terms of administrative effectiveness.¹²⁴

In summary, this section concerns those concepts related to the administrative effectiveness of secondary-school principals. Such concepts have been eyed and criticized by several different groups and individuals. The effectiveness of school principals or any administrators is situational, and depending upon who is doing the evaluation, the evaluator's expectations for the administrator's role, and the criteria used for evaluation. Effective secondary-school principals should, in general, possess certain traits, qualities, personal characteristics, and behavior not possessed by others. They must make their role very effective in administrative decision-making, communication, general administrative behavior, and educational leadership, and the like. The literature indicated that scholarship, intelligence, experience in educational administration, and positive attitude toward role and duties, are common factors highly correlated with school principal's administrative effectiveness.


CHAPTER III

METHOD AND PROCEDURES OF THE STUDY

Introduction

"Research design is the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions and to control variance," according to Kerlinger.¹ This chapter describes: 1) the present research design; 2) the development of the Principals Questionnaire; 3) the nature of the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.) or Teachers' Questionnaire including reliability and validity; 4) the translation of the questionnaires, the procedures for a pilot-study of the P.A.I.Q.; 5) the selection of the population for the study; 6) and the distribution, follow-up collection, and return of the questionnaires. This chapter also concludes with the description of the statistical procedures, the treatment of data for this study, and the corollaries of the hypotheses of the study.

The Principals' Questionnaire

The literature reviewed in Section II of Chapter II revealed academic training and educational experience variables that appear to

be related to administrative effectiveness. These variables were considered in developing the items for inclusion in the Principals' Questionnaire for this study.

A number of possible formats for the construction of the questionnaire were considered. Since the purpose of the questionnaire was to classify principals according to their experience and training, the items were categorical in nature with forced-choice responses. For items where interval measurements were requested, response choices had equal intervals, i.e., age (..., 30-35, 36-40, ...), number of years of teaching experience (..., 5-10, 11-15, ...). For items where nominal measurements were requested, the nominal response choices were presented, i.e., sex (male, female), undergraduate or graduate major (elementary education, secondary education, ...). Furthermore, for items where nominal measurements were requested, the most common responses were also listed with an "others" response.

The Principals' Questionnaire was designed to obtain data related to academic training and educational experience from each principal. Also included was a space on which each principal was asked to randomly list ten names of the full-time teachers in his school. Therefore, this questionnaire had two parts; a part which was related to the demographic data of each principal called "Questionnaire A", and another part "Questionnaire B" which provided space for the principal to list names of teachers in his/her school.

The Principals' Questionnaire was the check list or a closed-form questionnaire which was developed under a careful consideration of the following criteria for constructing questionnaires provided by Scates and Yeomans:
1. It must be short enough so as not to take too much time and so that the respondent will not reject it completely.

2. It must be of sufficient interest and have enough face appeal so that the respondent will be inclined to respond to it and to complete it.

3. The questionnaire should obtain some depth to the response in order to avoid superficial replies.

4. The ideal questionnaire must not be too suggestive or too unstimulating, particularly with reference to choices.

5. The questionnaire should elicit responses that are definite but not mechanically forced.

6. Questions must be asked in such a way that the responses will not be embarrassing to the individual.

7. Questions must be asked in such a manner as to avoid suspicion on the part of the respondent concerning hidden purposes in the questionnaire.

8. The questionnaire must not be too narrow, restrictive, or limited in its scope or philosophy.

9. The responses to the questionnaire must be valid, and the entire body of data taken as a whole must answer the basic question for which the questionnaire was designed.²

The Principals' Questionnaire was totally comprised of eleven items related to demographic data, educational training, and educational experience of the school principals. The Principals' Questionnaire is presented in Appendix C-4*, page 226 (or C-4, page 222 for the Thai version).

The Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.) or Teachers' Questionnaire

Nature and Development

The Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.) was used in this study to determine teachers' perceptions of the administrative effectiveness of their principals. It was developed and used by William C. Schutz in his research study. It has also been used in subsequent researches by others.

The P.A.I.Q., or "Teachers' Questionnaire", is a check-list or closed-form questionnaire, and is designed to provide information on the principals' administrative role as examined on four dimensions: administrative decision making, communications, general administrative behavior, and educational leadership. Each dimension contains nine items or statements related to the school and the school principal. The four dimensions of the P.A.I.Q. can be described as follows:

3 William C. Schutz, Leaders of Schools, Cooperative Research Project No. 1076, Berkeley, California; University of California 1966 (Mimeographed)


1. Administrative Decision-Making: This dimension measures the principal's ability to anticipate and recognize problems that affect the attainment and objectives for his school. His ability to critically weigh these problems and employ unique solutions is also measured.

2. Communications: This dimension measures the principal's ability to communicate with staff and community. It also measures the climate that exists for freedom of communications among staff members in the school.

3. General Administrative Behavior: This dimension measures the principal's ability to coordinate and maintain various functions of the school organization. His ability to provide teaching materials, develop duty schedules, supervise building maintenance, provide assistance to teachers and students, and other similar functions are measured.

4. Educational Leadership: This dimension measures the principal's ability to provide information and leadership in the school's instructional programs. He is evaluated on the implementation of new ideas, providing time for teachers' professional growth, examination of current curriculum programs, and other related functions. Totally, the P.A.I.Q. consists of thirty-six items or statements. Items 1-9, 10-18, 19-27, and 28-36, belong respectively to administrative decision-making, communications, general administrative behavior, and educational leadership. A completed P.A.I.Q. has been shown in Appendix A-3, page 203 in both Thai and English versions.
Each of the 36 items on the P.A.I.Q. can be responded to by selecting one of the six choices of the Likert-type rating scale. (See Table II, below).

**TABLE II**

THE PERCEPTIONS OF ADMINISTRATIVE INTERACTION QUESTIONNAIRE (P.A.I.Q) RESPONSES AND THEIR VALUES

<table>
<thead>
<tr>
<th>Response</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost always true in my school</td>
<td>6</td>
</tr>
<tr>
<td>Usually true in my school</td>
<td>5</td>
</tr>
<tr>
<td>Often true in my school</td>
<td>4</td>
</tr>
<tr>
<td>Sometimes true in my school</td>
<td>3</td>
</tr>
<tr>
<td>Rarely true in my school</td>
<td>2</td>
</tr>
<tr>
<td>Almost never true in my school</td>
<td>1</td>
</tr>
</tbody>
</table>

The school and school-principals' functionings are all positive; therefore, a rating of "almost always true in my school" received a value of "6", and ratings descend in value to "1" for an "almost never true in my school" response. The highest possible rating for a principal by one teacher-respondent would be a score of 54 per scale or 216 for the total P.A.I.Q.

The P.A.I.Q. was selected by the researcher for this study for the following reasons:
1. It consists of four dimensions of administrative performance rather than only one dimension often found in other instruments.

2. It appeared to be appropriate for measuring the administrative behavior of the secondary school principals; "face" validity was evident.

3. It has been field tested in at least one major study and was found to be statistically valid and reliable by its authors.

4. It can be completed by the respondent in a reasonable length of time.

Reliability

Reliability coefficients for the four dimensions have been reported by Schutz. They are presented in Table III, page 115.

Validity

Schutz used factor analysis to test the construct validity of the four dimensions of the P.A.I.Q. (see Table IV, page 116). The relatively low intercorrelation of the dimensions shows that the dimensions are relatively independent. 6

Translation of the Questionnaires

As the Principals' Questionnaire and the Teachers' Questionnaire (P.A.I.Q.) had to be sent and respectively responded to by the secondary-school principals and teachers in Thailand, both question-

TABLE III
THE PERCEPTIONS OF ADMINISTRATIVE INTERACTION QUESTIONNAIRE DIMENSIONS AND THEIR RELIABILITY COEFFICIENTS

<table>
<thead>
<tr>
<th>Dimension of P.A.I.Q.</th>
<th>Coefficient of Reproducibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Decision-Making</td>
<td></td>
</tr>
<tr>
<td>(statements 1-9 of P.A.I.Q.)</td>
<td>.921**</td>
</tr>
<tr>
<td>Communications</td>
<td></td>
</tr>
<tr>
<td>(statements 10-18 of P.A.I.Q.)</td>
<td>.909</td>
</tr>
<tr>
<td>General Administrative Behavior (School maintenance)</td>
<td></td>
</tr>
<tr>
<td>(statements 19-27 of P.A.I.Q.)</td>
<td>.904</td>
</tr>
<tr>
<td>Educational Leadership</td>
<td></td>
</tr>
<tr>
<td>(statements 28-36 of P.A.I.Q.)</td>
<td>.908</td>
</tr>
</tbody>
</table>

** Schutz does not report the samples employed. The reproducibility measure is analogous to a reliability coefficient.

TABLE IV
INTERCORRELATIONS AMONG CRITERION MEASURES OF RATINGS. 8

<table>
<thead>
<tr>
<th>Criterion</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Administrative Decision Making</td>
<td>----</td>
<td>0.54</td>
<td>0.47</td>
<td>0.50</td>
</tr>
<tr>
<td>2. Communications</td>
<td>----</td>
<td>0.55</td>
<td>0.52</td>
<td></td>
</tr>
<tr>
<td>3. Educational Leadership</td>
<td>----</td>
<td></td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>4. General Administrative Behavior</td>
<td>----</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8naires needed to be translated from English into Thai. A single reason for the translation of the questionnaires was— it would be more convenient for the Thai school principals and teachers to respond to the questionnaires in the Thai version, because not all teachers or principals read English well. It was felt the translation would make this study more valid.

In the process of the translation of the questionnaires, the researcher asked three Thai students at Oklahoma State University for assistance. One of them was major in linguistics, another one in speech and communication, and the third was a former secondary-school teacher with specialization in the Thai language.

Those persons, including the researcher, discussed appropriate words to be used in the translation and then considered possible translations of each item. The criteria used by this group of interpreters were (1) the Thai versions had to be accurate and cover all

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meanings in English versions, (2) the Thai version had to be short and understandable.

The language ultimately used for each item of both questionnaires was screened by the interpreters many times in the hope that it should be understood comprehensively by the respondents, whose educational backgrounds were varied.

Finally, the P.A.I.Q. was put into a prototype as the pilot study for the purpose of validation in terms of practical use and deletion of useless words and questions. The need to pilot test the Principals' Questionnaire did not exist since the items dealt with personal information about each respondent and translation was not necessary.

The Pilot-Study of the P.A.I.Q.

It was very difficult to translate one language to another and to achieve the same or close meanings. In order to minimize the distortion of this study which might be caused by the language translation, to maximize the validity and reliability of this study, and to survey the respondents' comprehension of the P.A.I.Q. in Thai version, the Teachers' Questionnaire was used in a pilot study. The respondents of this pilot-study were twenty-five Thai students from three selected universities in Oklahoma. There were nine students from Central State University, eight from the University of Oklahoma, and eight from Oklahoma State University. Each respondent was a graduate student who was currently majoring in education with at least one year of teaching experience, or one who was not currently majoring in education but was a former school-teacher and had had at least one year of teaching experience.
Procedure  The P.A.I.Q. was developed and printed in both Thai and English versions for the pilot-study. The completed P.A.I.Q. form for the Pilot-study is presented in Appendix A-3, page 203.

A pilot set for each respondent was comprised of the following materials:

1. A letter from the researcher explaining the purpose and procedures of the study and the pilot-study. A copy of this letter is shown in Appendix A-1, page 200.

2. The P.A.I.Q. in both Thai and English versions (see page 203).

3. An extra paper with 36 blank-items provided for each respondent who wished to make a commentary or critique, and wished to change the translation (see Appendix A-3, pages 207-208).

The pilot-study followed a "one-group pretest-posttest" design. A pilot set was directly distributed to each respondent by the research for the pretest in November 17, 1975. Within a week, the researcher's representatives from each institution collected and returned all questionnaires to the researcher.

The respondents' critiques and commentary written on the extra paper were carefully studied and considered by the researcher and the interpreters. Most respondents criticized and commented that the translation was clear and concise; thus, only a few items of the P.A.I.Q. needed to be rewritten for the posttest.

A refined set of questionnaires which were to be used in the study was also directly distributed to each respondent by the researcher in November 25, 1975. Another letter from the researcher explaining the purpose and procedure of the posttest was included. All posttest
questionnaires were also collected and returned to the researcher by
his representatives within two weeks.

Statistical Treatment and the Results of the
Pilot Study for the P.A.I.Q.

Upon receipt of the pretest and posttest questionnaires, the
Statistical Analysis System (SAS) Program was used for computing a
paired comparison t-test to determine whether there were any differ-
ces in response to pre-test and post-test questions. Table V shows
the mean differences between pre and post test, the standard deviation
of the differences and the paired comparison t-statistics.

Paired comparison t-test:
\[
t = \frac{\bar{d}\sqrt{N}}{S_d} \sim t_{N-1}, .025
\]

\(d\) = Mean differences between pre and post test

\(S_d\) = Standard deviation

\(N\) = Number of respondents

\(N-1\) = Degree of freedom

\(D\) = Differences between pre and post test

Only one significant difference was observed. It should be noted
that in performing 36 independent t-test at the 5% level, we would
expect about two significant differences to occur by chance alone.
Hence, there is a little evidence that the Thai and English versions
of the item 20 of the questionnaire give significantly different

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The Statistical Analysis System (SAS) was developed by Anthony
J. Barr, and James H. Goodnight. More information of the SAS Program
can be seen from Jolayne Service, A User's Guide to the Statistical
Analysis System. Raleigh, North Carolina; North Carolina State
University, 1972.
TABLE V


<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean (d)</th>
<th>Standard Deviation (Sd)</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
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<td>-0.208333</td>
<td>0.977093</td>
<td>1.044546</td>
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<td>24</td>
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<td>1.041703</td>
<td>0.195953</td>
</tr>
<tr>
<td>D3</td>
<td>25</td>
<td>0.240000</td>
<td>0.925563</td>
<td>1.296508</td>
</tr>
<tr>
<td>D4</td>
<td>25</td>
<td>-0.160000</td>
<td>0.986577</td>
<td>0.810884</td>
</tr>
<tr>
<td>D5</td>
<td>25</td>
<td>0.120000</td>
<td>0.971253</td>
<td>0.617758</td>
</tr>
<tr>
<td>D6</td>
<td>24</td>
<td>0.083333</td>
<td>1.212854</td>
<td>0.336599</td>
</tr>
<tr>
<td>D7</td>
<td>24</td>
<td>0.000000</td>
<td>1.383128</td>
<td>0.000000</td>
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<tr>
<td>D8</td>
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<td>-0.250000</td>
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<td>1.100239</td>
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<td>23</td>
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<td>1.053884</td>
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</tr>
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<td>-0.458333</td>
<td>1.141287</td>
<td>1.967396</td>
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<td>D11</td>
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<tr>
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<td>1.273401</td>
<td>1.72656</td>
</tr>
<tr>
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<td>25</td>
<td>-0.200000</td>
<td>1.000000</td>
<td>1.000000</td>
</tr>
<tr>
<td>D16</td>
<td>22</td>
<td>-0.045455</td>
<td>0.785419</td>
<td>0.271451</td>
</tr>
<tr>
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<td>25</td>
<td>-0.375000</td>
<td>1.122497</td>
<td>1.670383</td>
</tr>
<tr>
<td>D18</td>
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<td>0.120000</td>
<td>1.092398</td>
<td>0.549250</td>
</tr>
<tr>
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<td>25</td>
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<td>0.969536</td>
<td>1.237705</td>
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<tr>
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<td>1.273943</td>
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</tr>
<tr>
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<tr>
<td>D28</td>
<td>23</td>
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<td>1.065076</td>
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<td>0.927362</td>
<td>0.646996</td>
</tr>
<tr>
<td>D34</td>
<td>25</td>
<td>0.040000</td>
<td>0.934523</td>
<td>0.214012</td>
</tr>
<tr>
<td>D35</td>
<td>25</td>
<td>0.120000</td>
<td>1.480991</td>
<td>0.405134</td>
</tr>
<tr>
<td>D36</td>
<td>25</td>
<td>0.040000</td>
<td>1.135782</td>
<td>0.176090</td>
</tr>
</tbody>
</table>

*indicates significance at 5% level.
results. Taken as a whole, the items appeared to be sufficiently reliable for the purpose of this study.

Hypotheses to be Tested

The corollaries of four broad hypotheses which have been stated in Chapter 1, page 5 through 6, are listed as follows:

$H_0^1$: There would be no significant difference in means for total scores of the perceptions of Administrative Interaction Questionnaire between junior secondary-school principal and junior-senior secondary-school principals.

$H_0^2$: There would be no significant difference in means of scores for the Administrative Decision-Making dimension of the Perceptions of Administrative Interaction Questionnaire between junior secondary-school principals and junior-senior secondary-school principals.

$H_0^3$: There would be no significant difference in means of scores for the Communication dimension of the Perceptions of Administrative Interaction Questionnaire between junior secondary-school principals and junior-senior secondary-school principals.

$H_0^4$: There would be no significant difference in means of scores for the General Administrative Behavior dimension of the Perceptions of Administrative Interaction Questionnaire between junior secondary-school principals and junior-senior secondary-school principals.

$H_0^5$: There would be no significant difference in means of scores for the Educational Leadership dimension of the Perceptions
of Administration Interaction Questionnaire between junior secondary-school principals and junior-senior secondary-school principals.

$H_6^0$ : There would be no significant difference in means for total scores of the Perceptions of Administrative Interaction Questionnaire between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration.

$H_7^0$ : There would be no significant difference in means of score for the Administrative Decision-Making dimension of the P.A.I.Q. between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration.

$H_8^0$ : There would be no significant difference in means of scores for the Communication dimension of the P.A.I.Q. between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration.

$H_9^0$ : There would be no significant difference in means of scores for the General Administrative Behavior dimension of the P.A.I.Q. between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration.

$H_{10}^0$ : There would be no significant difference in means of scores for the Educational Leadership dimension of the P.A.I.Q. between junior secondary-school principals trained in
123

educational administration and junior secondary-school principals not trained in educational administration.

$H_{11}^{0}$: There would be no significant difference in means for total scores of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

$H_{12}^{0}$: There would be no significant difference in means of scores for the Administrative Decision-Making dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

$H_{13}^{0}$: There would be no significant difference in means of scores for the Communication dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

$H_{14}^{0}$: There would be no significant difference in means of scores for the General Administrative Behavior dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

$H_{15}^{0}$: There would be no significant difference in means of scores for the Educational Leadership dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in
educational administration and junior-senior secondary-school principals not trained in educational administration.

$H_{16}^0$: There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior secondary-school principals and high effective junior-senior secondary-school principals.

$H_{17}^0$: There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals and low effective junior-senior secondary-school principals.

$H_{18}^0$: There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior secondary-school principals trained in educational administration and high effective junior secondary school principals not trained in educational administration.

$H_{19}^0$: There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals trained in educational administration and low effective junior secondary-school principals not trained in educational administration.

$H_{20}^0$: There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior-senior secondary-school principals trained in educational administration and high effective junior-senior secondary-school principals not trained in educational administration.

$H_{21}^0$: There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior-
senior secondary-school principals trained in educational administration and low effective junior-senior secondary-school principals not trained in educational administration.

$H_0^{22}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior-secondary-school principals not trained in educational administration and high effective junior-senior secondary-school principals not trained in educational administration.

$H_0^{23}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals not trained in educational administration and low effective junior-senior secondary-school principals not trained in educational administration.

$H_0^{24}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals trained in educational administration and low effective junior-senior secondary-school principals trained in educational administration.

$H_0^{25}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior secondary-school principals trained in educational administration and high effective junior-senior secondary school principals trained in educational administration.

$H_0^{26}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between (total junior and junior-senior) secondary-school principals who had had a longer period of administrative experience and (total junior and junior-
senior) secondary school principals who had had a shorter period of administrative experience.

$H_0^{27}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between (total junior and junior-junior-senior) secondary-school principals who had had a longer period of teaching experience and (total junior and junior-senior) secondary-school principals who had had a shorter period of teaching experience.

$H_0^{28}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between younger (junior and junior-senior) secondary-school principals and older (junior and junior-senior) secondary-school principals.

$H_0^{29}$: There would be no significant difference in means for the total scores of the P.A.I.Q. between male (junior and junior-senior) secondary-school principals and female (junior and junior-senior) secondary-school principals.

Selection of the Population for the Study

Thailand has twelve educational regions. 10 Educational Region I consists of seven provinces; Bangkok, Thonburi, Nontaburi, Pathumthani, Nakornpathom, Samutprakarn, and Samutsakorn. 11 Each province has a number of junior secondary-schools (Matayon Suksa 1-3, or Grades 8-10) and junior-senior secondary-schools (Matayom Suksa 1-5, or Grades 8-12), as indicated below in Table VI.

10 See Figure IV, page 38.

11 See Figure V, page 39.
TABLE VI
NUMBERS OF JUNIOR AND JUNIOR-SENIOR SECONDARY-SCHOOLS
IN EACH PROVINCE OF EDUCATIONAL REGION I

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of Jr. Sec. Schls. (M.S. 1-3)</th>
<th>Number of Jr.-Sr. Sec. Schols (M.S. 1-5)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok-Thonburi*</td>
<td>18</td>
<td>56</td>
<td>74</td>
</tr>
<tr>
<td>Nonthaburi</td>
<td>5</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Pathumthani</td>
<td>6</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Nakornpathom</td>
<td>12</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Sanutprakarn</td>
<td>4</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Samutsakorn</td>
<td>2</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>47</strong></td>
<td><strong>72</strong></td>
<td><strong>119</strong></td>
</tr>
</tbody>
</table>

*Bangkok-Thonburi are twin-cities that have been combined into a single region called "Central Region", which is also under the jurisdiction of Educational Region I.

Two groups of the population were required for the study; 1) Principals of junior and junior-senior secondary-schools; and 2) Teachers who work for these principals.

The Principals All principals of junior and junior-senior secondary-schools in Educational Region I were the population of this study. There were totally 119 secondary-school principals in this region, 47 junior secondary-schools, and 72 junior-senior secondary-schools.

Each principal had to meet the requirement that he/she must have been assigned as the principal in that school not less than one academic year.
The Teachers  The teaching faculties of the 47 junior secondary schools and of the 72 junior-senior secondary-schools provided the population of teachers for study. Ten teachers from each school were randomly selected to respond the Teachers' Questionnaire or the P.A.I.Q. Each selected teacher had to meet these following requirements: 1) He/she must be a full-time teaching faculty member, 2) He/she must have been assigned to work with this principal not less than one academic year, and, 3) He/she must have at least one academic year of teaching experience.

Each principal was asked by the researcher to randomly select ten teachers in his/her school. The principals randomly selected the teachers under the instruction and material (see Table of Random Numbers, page 221) provided and given by the researcher. Each teacher who was selected had to meet all requirements mentioned above. Through this selection process there would be 1190 junior and junior-senior secondary-school teachers in the initial teacher population of this study.

Distribution, Collection, Follow-up, and the Return of the Questionnaires

Distribution, Follow-up, and Collection

A set of materials for the principal contained the following:

1. A letter from the researcher to the principal explaining the purpose and procedures of the study, including an explanation of the process for randomly selecting the school teachers (See Appendix C-2, page 218), and the Table of Random Numbers.
2. A letter from the Under-Secretary of the Ministry of Education indicating his support of the study. (See Appendix C-1, page 217).

3. A copy of the Principals' Questionnaire; both Questionnaire A and Questionnaire B. (See Appendix C-4*, pages 226-229).

Similarly, the questionnaire for the teacher was prepared; it consisted of the following materials:

1. A letter from the researcher to the teacher explaining the purpose and procedures of the study. (See Appendix C-2, page 218).

2. A letter from the Acting Director-General of the Department of General Education indicating his support of the study. (See Appendix D-1, page 231).

3. A copy of the Teachers' Questionnaire, or the P.A.I.Q. (See Appendix D-3, page 234).

4. An envelope provided for each teacher to seal his/her answer sheet before giving back to the principal.

The packets of the questionnaires were prepared by the researcher's data-coordinators in Thailand, under the instruction and materials given by the researcher. Each packet of the questionnaires contained the following materials:

1. A set of the questionnaires for the principal.

2. Ten sets of the questionnaire for the teachers who were randomly selected by the principal in that school.

3. A large stamped envelope provided for the principal to collect and put ten teachers' answer-sheets and return to the researcher's data-coordinators in Thailand.
The data-coordinators started mailing the packets of the questionnaires to 119 school principals in Educational Region I, on January 1, 1976. It was expected that all questionnaires would be returned to the data-coordinators not later than February 15, 1976.

In February 11, 1976, five weeks after mailing the packet, the researcher's follow-up letters were sent by the data-coordinators to those principals who had not responded. A copy of this letter is found in Appendix E-1, page 237.

The data-coordinators also sent the researcher's letter of thanks to each principal who returned the completed questionnaires—his questionnaire and the teachers' questionnaires. The teachers who participated in this study were also regarded and acknowledged through this letter. A copy of this letter is found in Appendix E-2, page 238.

March 15, 1976, was the latest date for the data-coordinators to receive the returned questionnaires. They sent back all returned questionnaires to the researcher on March 16, 1976. The returned questionnaires received by the data-coordinators after this date were excluded from the study. The researcher received the completed questionnaires on March 27, 1976.

Return of Questionnaires

One hundred and two of the hundred and nineteen junior and junior–senior schools throughout Educational Region I responded and returned the questionnaires. From this mentioned number, two were eliminated from the study because of these reasons:

1. In school, all ten teachers responded to their questionnaires, but the principal did not fill out his/her questionnaire.
2. In another case, only two out of ten teachers responded to the questionnaires. It was, therefore, considered by the researcher that this school did not provide enough information for the study.

One hundred returned questionnaires could be categorized as follows:

The Principals  Shown in Table VII are the number of school principals at two organizational levels who were sent the questionnaires, the number of principals who responded to the questionnaires and the percentage of responses in each province.

The Teachers  Shown in Table VIII are the number of school teachers at two organizational levels who were sent the P.A.I.Q., the number who responded, and the percentage of responses in each province.

Summary of the Principals'
Questionnaires Returned

The demographic data for junior and junior-senior secondary school principals could be summarized in Tables IX, X, and XI.

Treatment of Data

After all data were received and the incomplete questionnaires were eliminated, one computer card was punched for each of the 37 junior secondary school principals and 63 junior-senior secondary school principals who composed the final sample. Each card contained:

1. A code number for the principals, 00-99.
2. A code number for each of his faculty who responded the Principals' Questionnaire, 000-999.
<table>
<thead>
<tr>
<th>Province and Schools Represented</th>
<th>Number of Questionnaires Sent</th>
<th>Return Received</th>
<th>Percentage of Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangkok-Thonburi:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>18</td>
<td>11</td>
<td>61.11</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>56</td>
<td>47</td>
<td>83.93</td>
</tr>
<tr>
<td>Nonthaburi:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>5</td>
<td>3</td>
<td>60.00</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>4</td>
<td>4</td>
<td>100.00</td>
</tr>
<tr>
<td>Pathumthani:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>6</td>
<td>5</td>
<td>83.33</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>3</td>
<td>3</td>
<td>100.00</td>
</tr>
<tr>
<td>Nakornpathom:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>12</td>
<td>12</td>
<td>100.00</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>2</td>
<td>2</td>
<td>100.00</td>
</tr>
<tr>
<td>Samutprakarn:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>4</td>
<td>4</td>
<td>100.00</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>4</td>
<td>4</td>
<td>100.00</td>
</tr>
<tr>
<td>Samutsakorn:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>2</td>
<td>2</td>
<td>100.00</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>3</td>
<td>3</td>
<td>100.00</td>
</tr>
<tr>
<td>Total:</td>
<td>119</td>
<td>100</td>
<td>84.03</td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>47</td>
<td>37</td>
<td>78.72</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>72</td>
<td>63</td>
<td>87.50</td>
</tr>
</tbody>
</table>
### TABLE VIII

**TEACHERS' RESPONSES TO QUESTIONNAIRE**

<table>
<thead>
<tr>
<th>Province and Schools Represented</th>
<th>Number of Questionnaires Sent</th>
<th>Return Received</th>
<th>Percentage of Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bankok-Thonburi:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>740</td>
<td>580</td>
<td>78.38</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>560</td>
<td>470</td>
<td>83.93</td>
</tr>
<tr>
<td><strong>Nonthaburi:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>90</td>
<td>70</td>
<td>77.78</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>50</td>
<td>30</td>
<td>60.00</td>
</tr>
<tr>
<td><strong>Pathumthani:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>90</td>
<td>80</td>
<td>88.89</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>60</td>
<td>50</td>
<td>83.33</td>
</tr>
<tr>
<td><strong>Nakornpathom:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>140</td>
<td>140</td>
<td>100.00</td>
</tr>
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<td>Jr.-Sr. Sec. Schls</td>
<td>120</td>
<td>120</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Samuthprakarn:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>80</td>
<td>80</td>
<td>100.00</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>40</td>
<td>40</td>
<td>100.00</td>
</tr>
<tr>
<td><strong>Samutsakorn:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>50</td>
<td>50</td>
<td>100.00</td>
</tr>
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<td>Jr.-Sr. Sec. Schls</td>
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<td>1,190</td>
<td>1,000</td>
<td>84.03</td>
</tr>
<tr>
<td>Jr. Sec. Schls</td>
<td>470</td>
<td>370</td>
<td>78.72</td>
</tr>
<tr>
<td>Jr.-Sr. Sec. Schls</td>
<td>720</td>
<td>630</td>
<td>87.50</td>
</tr>
</tbody>
</table>
TABLE IX
SUMMARY OF ADMINISTRATIVE AND TEACHING EXPERIENCE OF SECONDARY SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th>Administrative Experience</th>
<th>Jr Sec Schl Prins</th>
<th>Jr-Sr Sec Schl Prins</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>(37)</td>
<td>(100)</td>
<td>(63)</td>
</tr>
<tr>
<td>Number of years of Teaching Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5 to 10</td>
<td>4</td>
<td>10.81</td>
<td>4</td>
</tr>
<tr>
<td>11 to 15</td>
<td>7</td>
<td>18.92</td>
<td>8</td>
</tr>
<tr>
<td>16 to 20</td>
<td>11</td>
<td>29.73</td>
<td>7</td>
</tr>
<tr>
<td>21 to 25</td>
<td>10</td>
<td>27.03</td>
<td>14</td>
</tr>
<tr>
<td>26 to 30</td>
<td>4</td>
<td>10.81</td>
<td>15</td>
</tr>
<tr>
<td>31 to 35</td>
<td>1</td>
<td>2.70</td>
<td>11</td>
</tr>
<tr>
<td>36 to 40</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Over 40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Number of years of Administrative Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 5</td>
<td>12</td>
<td>32.43</td>
<td>10</td>
</tr>
<tr>
<td>6 to 10</td>
<td>13</td>
<td>35.14</td>
<td>20</td>
</tr>
<tr>
<td>11 to 15</td>
<td>7</td>
<td>18.92</td>
<td>13</td>
</tr>
<tr>
<td>16 to 20</td>
<td>3</td>
<td>8.11</td>
<td>8</td>
</tr>
<tr>
<td>21 to 25</td>
<td>2</td>
<td>5.41</td>
<td>8</td>
</tr>
<tr>
<td>26 to 30</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>31 to 35</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>36 to 40</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Over 40</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
TABLE X
SUMMARY OF EDUCATIONAL BACKGROUND OF SECONDARY SCHOOL PRINCIPALS BY UNDERGRADUATE AND GRADUATE MAJORS

<table>
<thead>
<tr>
<th></th>
<th>Jr Sec Schl Prins</th>
<th>Jr-Sr Sec Schl Prins</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Undergraduate Majors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Ed.</td>
<td>1</td>
<td>2.70</td>
<td>2</td>
</tr>
<tr>
<td>Secondary Ed.</td>
<td>6</td>
<td>16.22</td>
<td>10</td>
</tr>
<tr>
<td>Ed. Administration</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Physical Ed.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mathematics</td>
<td>2</td>
<td>5.41</td>
<td>4</td>
</tr>
<tr>
<td>Sciences</td>
<td>5</td>
<td>13.51</td>
<td>9</td>
</tr>
<tr>
<td>Languages</td>
<td>1</td>
<td>2.70</td>
<td>5</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>6</td>
<td>16.22</td>
<td>5</td>
</tr>
<tr>
<td>Business Ed.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>13*</td>
<td>35.14</td>
<td>22a</td>
</tr>
<tr>
<td>Graduate Majors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Ed.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Secondary Ed.</td>
<td>3</td>
<td>8.11</td>
<td>3</td>
</tr>
<tr>
<td>Ed. Administration</td>
<td>2</td>
<td>5.41</td>
<td>7</td>
</tr>
<tr>
<td>Physical Ed.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mathematics</td>
<td>1</td>
<td>2.70</td>
<td>-</td>
</tr>
<tr>
<td>Sciences</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Languages</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Social Sciences</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Business Ed.</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Others</td>
<td>31**</td>
<td>83.78</td>
<td>53b</td>
</tr>
</tbody>
</table>

*Within this group, four had an educational background below the Bacca­laureate degree, and the rest had more than one major.
**Within this group, thirty had an educational background below the Master's degree, and one of them had two majors at the Master's level.

aWithin this group, two had an educational background below the Bacca­laureate degree, and the rest (20) had more than one major.
bWithin this group, forty-five had an educational background below the Master's degree, and eight had a Master's degree with more than one major.
TABLE XI

TRAINING, SEX, AGE, AND EXPERIENCE VARIABLES FOR THE TWO GROUPS OF PRINCIPALS

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Trained in Educational Administration</th>
<th>Not trained in Educational Administration</th>
<th>Sex</th>
<th>Age</th>
<th>Years of Teaching Experience</th>
<th>Years of Administrative Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior Secondary School Principals</td>
<td>37</td>
<td>8*</td>
<td>29(^a)</td>
<td>35</td>
<td>2</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior-Senior Secondary School Principals</td>
<td>63</td>
<td>17(^**)</td>
<td>46(^b)</td>
<td>37</td>
<td>26</td>
<td>16</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>25</td>
<td>75</td>
<td>72</td>
<td>28</td>
<td>46</td>
<td>54</td>
</tr>
</tbody>
</table>

\(^a\) Two principals earned the Master's degree in educational administration.
\(^**\) Six principals earned the Master's degree in educational administration.
\(^b\) Five principals had an educational background below the Baccalaureate degree.

Seven principals had an educational background below the Baccalaureate degree.
3. The raw score for each of the four scales of the Perceptions of Administrative Interaction Questionnaire given the principal by ten teachers from his faculty.

The Statistical Analysis System (SAS)\textsuperscript{11} was used to ascertain the mean scores and standard deviations for the total junior secondary school principal samples. The same process was used for the total junior-senior secondary school principal samples. Table XII shows these means and standard deviations.

Each P.A.I.Q. scale consisted of the summed scores for nine questions, each of which was rated on a 1 through 6 scale. In the event that any teacher did not answer a particular question, then the P.A.I.Q. scale which involved that question was deemed to be missing. The remaining three P.A.I.Q. scales would be valid in this case. All computations were based on as much valid data as was available.

Those junior secondary school principals whose mean scores were one standard deviation or more below the total mean score for the sample were classified as "low effective". Those junior secondary school principals whose mean scores were one standard deviation or more above the total mean score for the sample were classified as "high effective". The low and high effective junior-senior secondary school principals were determined by the same process.

The separation of the high effective groups and the low effective groups by the use of standard deviations was done for the following reasons:

TABLE XII

MEANS AND STANDARD DEVIATIONS FOR EACH DIMENSION OF THE P.A.I.Q. AND THE TOTAL MEANS AND STANDARD DEVIATIONS FOR JUNIOR AND JUNIOR-SENIOR SECONDARY SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th>Scale</th>
<th>Jr. Sec. Schl. Principals</th>
<th>Jr. Sr. Sec. Schl. Principals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Means</td>
<td>Sd.</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------</td>
<td>-----</td>
</tr>
<tr>
<td>Administrative Decision-Making</td>
<td>36.07</td>
<td>4.63</td>
</tr>
<tr>
<td>Communication</td>
<td>34.45</td>
<td>5.11</td>
</tr>
<tr>
<td>General Administrative Behavior</td>
<td>32.77</td>
<td>4.54</td>
</tr>
<tr>
<td>Educational Leadership</td>
<td>28.90</td>
<td>4.72</td>
</tr>
<tr>
<td>Total</td>
<td>132.23</td>
<td>17.45</td>
</tr>
</tbody>
</table>
1. The scores for the comparison groups are approximately the same distance from the mean for the total sample.

2. Assuming a normal distribution for the samples there would be approximately 68 per cent of the scores differentiating the two comparison groups, each containing approximately 16 per cent of the total sample.

Table XIII depicts the percentage of school principals for the comparison groups that are one or more standard deviations above and below the means of the respective samples. It also shows the number of school principals found in those categories distributed according to a normal curve: with $N = 100$.

<p>| TABLE XIII |
| RELATIONSHIP OF THE COMPARISON GROUPS TO THE NORMAL CURVE |
| Number and Percentage of Secondary School Principals in each Category |
| Low | Average | High |</p>
<table>
<thead>
<tr>
<th>Number</th>
<th>%</th>
<th>Number</th>
<th>%</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Sec Schl Principals</td>
<td>4</td>
<td>10.81</td>
<td>28</td>
<td>75.68</td>
<td>5</td>
</tr>
<tr>
<td>Jr.-Sr. Sec Schl Principals</td>
<td>11</td>
<td>17.46</td>
<td>40</td>
<td>63.49</td>
<td>12</td>
</tr>
<tr>
<td>Normal Curve</td>
<td>16</td>
<td>15.88</td>
<td>68</td>
<td>68.24</td>
<td>16</td>
</tr>
</tbody>
</table>
Mean scores for the high effective and low effective groups were computed by using the SAS Computer Program for each of the P.A.I.Q. scales and their mean scores total. Table XIV shows these means and standard deviations.

Four major factors were considered in order to determine the appropriate statistical analysis of the data in this study. Those factors were:

1. The nature of the scales used.
2. The data being treated.
3. The assumptions underlying the $t$-test.
4. The assumptions underlying the one-way analysis of variance.

The P.A.I.Q. scales are basically ordinal in nature. However, Kerlinger stated that, "Though most psychological scales are basically ordinal, we can with considerable assurance often assume an equality of interval".\textsuperscript{12} Kerlinger further supported his position by stating that:

"The best procedure would seem to be to treat ordinal measurements as though they were interval measurements, but to be constantly alert to the possibility of gross inequality of intervals."\textsuperscript{13}

The Principals' Questionnaires contained statements that required both interval and nominal data. The data requested were:

1. Age (interval)
2. Sex (nominal)
3. Level of educational background (nominal)
4. Undergraduate major (nominal)

\textsuperscript{13}Ibid., p. 441.
### TABLE XIV

MEANS AND STANDARD DEVIATIONS FOR THE HIGH EFFECTIVE AND LOW EFFECTIVE SECONDARY SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th></th>
<th>High Effective Jr. Sec Schl Principals</th>
<th>Low Effective Jr. Sec Schl Principals</th>
<th>High Effective Jr.-Sr. Sec Schl Prins</th>
<th>Low Effective Jr.-Sr. Sec Schl Prins</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (N = 5)</td>
<td>Mean (N = 4)</td>
<td>Mean (N = 12)</td>
<td>Mean (N = 11)</td>
</tr>
<tr>
<td>Admin. Dec.-Making</td>
<td>41.70 1.05</td>
<td>26.40 2.09</td>
<td>41.08 2.27</td>
<td>28.83 1.86</td>
</tr>
<tr>
<td>Communication</td>
<td>41.60 2.52</td>
<td>23.50 1.76</td>
<td>39.73 2.56</td>
<td>28.04 2.06</td>
</tr>
<tr>
<td>Gen.-Ad Behavior</td>
<td>38.96 1.62</td>
<td>25.25 3.82</td>
<td>38.60 3.80</td>
<td>27.15 1.73</td>
</tr>
<tr>
<td>Educ. Leadership</td>
<td>35.86 2.67</td>
<td>20.78 3.92</td>
<td>36.26 2.50</td>
<td>24.26 2.15</td>
</tr>
<tr>
<td>Mean Total</td>
<td>157.79 4.25</td>
<td>95.93 10.79</td>
<td>155.48 6.26</td>
<td>108.67 4.23</td>
</tr>
</tbody>
</table>

141
5. Graduate major (nominal)
6. Total number of years of classroom teaching experience (interval)
7. Organizational level of classroom teaching experience (nominal)
8. Subject area of classroom teaching experience (nominal)
9. Previous position of administrative experience (nominal)
10. Total number of years of administrative experience (interval)
11. Organizational level of administrative experience (nominal)

The t-test was selected for the treatment of the interval data in this study. The assumptions underlying the t-test were:

1. It is assumed that the samples with which we work have been drawn from populations that are normally distributed.
2. It is assumed that the variances within the groups are statistically the same.
3. It is assumed that the measures to be analyzed are continuous measures with equal intervals.\(^\text{14}\)

However, Boneau stated that, "Violation of these assumptions about the t-test produced a minimal effect on the distribution of t's."\(^\text{15}\)

The SAS Computer Program, used to analyze the data for the t-value in this study, was designed for samples with unequal "N's".

The high and low effective groups of the secondary-school principals were compared as to their ratings, given by their teachers, on the four scales of the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.). The t-test was used to determine if there were any

\(^{14}\)Ibid., pp. 286-288.

significant differences between the two groups of secondary-school principals as to their administrative performance.

The one-way or single-classification analysis of variance was selected for the treatment of the data in this study for the same reasons as the $t$-test. The SAS Computer Program used in this study directly produced the completed output of the analysis of variance.

The assumptions underlying the one-way analysis of variance are:

1. It is assumed that the measures within each category or subgroup must represent random samples.

2. It is assumed that the variances within the subgroups are homogeneous.\(^\text{16}\)

The analysis of variance was used to determine if the mean scores obtained for the total junior secondary school principals and the total junior-senior secondary school principals differed significantly as to each of the four P.A.I.Q. scales, namely Administrative Decision-Making, Communication, General Administrative Behavior, and Educational Leadership. It was also applied to determine if junior secondary-school principals and junior-senior secondary-school principals differed significantly as to their training in educational administration, sex, age, teaching experience, and administrative experience.

CHAPTER IV

PRESENTATION AND STATISTICAL ANALYSIS OF THE DATA

Introduction

In this chapter the presentation and analysis of the data, related to each of the hypotheses examined, will be reported. Data and statistical techniques used in this study were the output of the Statistical Analysis System (SAS) Computer Program which was available at the Oklahoma State University Computer Center. One-way analysis of variance and the t-test were employed to determine if significant differences existed between two organizational levels of secondary-school principals, according to the demographic variables considered. Adhering to common practice, each hypothesis was accepted (or could not be rejected, or failed to be rejected which is presently preferred to use by statisticians) at the .05 level of significance.

Testing the Hypotheses

Several main hypotheses were tested to find out the answers to the research questions. Each hypothesis tested and the statistical analysis for each is presented in the following sections:

$H_0^1$ There would be no significant difference in means for total scores of the Perception of Administrative Interaction Questionnaires (P.A.I.Q.) between junior secondary-school principals and junior-senior secondary-school principals.
The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.034. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \( H^1 \) could not be rejected. Data relevant to this hypothesis are summarized in Table XV.

**TABLE XV**

**ANALYSIS OF VARIANCE FOR TOTAL MEAN SCORES OF THE PERCEPTIONS OF ADMINISTRATIVE INTERACTION QUESTIONNAIRE BETWEEN JUNIOR AND JUNIOR-SENIOR SECONDARY-SCHOOL PRINCIPALS**

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>9.506</td>
<td>9.506</td>
<td>0.034</td>
<td>0.85</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>27162.053</td>
<td>277.164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>27171.559</td>
<td>274.460</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means of scores for the Administrative Decision-Making dimension of the P.A.I.Q. between junior secondary-school principals and junior-senior secondary-school principals.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.892. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F
value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \( H_0^2 \) could not be rejected. Data relevant to this hypothesis are summarized in Table XVI.

### Table XVI

**Analysis of Variance for Means of Scores for the Administrative Decision-Making Dimension of the P.A.I.Q. Between Junior and Junior-Senior Secondary-School Principals**

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>( F ) (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>17.823</td>
<td>17.823</td>
<td>0.892</td>
<td>0.65</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>1958.328</td>
<td>19.983</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>1976.151</td>
<td>19.961</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means of scores for the Communication dimension of the Perception of Administrative Interaction Questionnaire between junior secondary-school principals and junior-senior secondary-school principals.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.284. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the
hypothesis \((H^3_o)\) could not be rejected. Data relevant to this hypothesis are summarized in Table XVII.

### TABLE XVII

**ANALYSIS OF VARIANCE FOR MEANS SCORES FOR THE COMMUNICATION DIMENSION OF THE P.A.I.Q. BETWEEN JUNIOR AND JUNIOR-SENIOR SECONDARY-SCHOOL PRINCIPALS**

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>6.214</td>
<td>6.214</td>
<td>0.284</td>
<td>0.60</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>2142.806</td>
<td>21.865</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>2149.020</td>
<td>21.707</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(H^4_o\) There would be no significant difference in means of scores for the General Administration Behavior dimension of the P.A.I.Q. between junior secondary-school principals and junior-senior secondary school principals.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.036. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \((H^4_o)\) could not be rejected. Data relevant to this hypothesis are summarized in Table XVIII.
TABLE XVIII
ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE
GENERAL ADMINISTRATIVE BEHAVIOR DIMENSION OF THE
P.A.I.Q. BETWEEN JUNIOR AND JUNIOR-SENIOR
SECONDARY-SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Means Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>0.731</td>
<td>0.731</td>
<td>0.036</td>
<td>0.85</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>2007.608</td>
<td>20.486</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>2008.339</td>
<td>20.286</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means of scores for the Educational Leadership dimension of the P.A.I.Q. between junior secondary-school principals and junior-senior secondary-school principals.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 1.075. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis ($H_0^5$) could not be rejected. Data relevant to this hypothesis are summarized in Table XIX.
TABLE XIX

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR
THE EDUCATIONAL LEADERSHIP DIMENSION OF THE
P.A.I.Q. BETWEEN JUNIOR AND JUNIOR-SENIOR
SECONDARY-SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>23.428</td>
<td>23.428</td>
<td>1.075</td>
<td>0.30</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>2136.041</td>
<td>21.796</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>2159.470</td>
<td>21.813</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$H_0^6$ There would be no significance difference in means for total scores of the P.A.I.Q. between junior secondary school principals trained in educational administration and junior secondary school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.011. With 35 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.17 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis ($H_0^6$) could not be rejected. Data relevant to this hypothesis are summarized in Table XX.
TABLE XX

ANALYSIS OF VARIANCE FOR TOTAL MEAN SCORES OF THE PERCEPTIONS OF ADMINISTRATIVE INTERACTION QUESTIONNAIRE BETWEEN JUNIOR SECONDARY-SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR SECONDARY-SCHOOL NOT TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>3.553</td>
<td>3.553</td>
<td>0.011</td>
<td>0.91</td>
</tr>
<tr>
<td>Within Groups</td>
<td>35</td>
<td>10951.715</td>
<td>312.906</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>10955.268</td>
<td>204.313</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significance difference in means of scores for the Administrative Decision Making dimension of the P.A.I.Q. between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.011. With 35 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.17 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \(H_0\) could not be rejected. Data relevant to this hypothesis are summarized in Table XXI.
TABLE XXI

ANALYSIS OF VARIANCE FOR MEAN OF SCORES FOR THE
ADMINISTRATIVE DECISION-MAKING DIMENSION OF
THE P.A.I.Q. BETWEEN JUNIOR SECONDARY
SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR
SECONDARY-SCHOOL PRINCIPALS NOT
TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>0.233</td>
<td>0.233</td>
<td>0.011</td>
<td>0.92</td>
</tr>
<tr>
<td>Within Groups</td>
<td>35</td>
<td>771.762</td>
<td>22.050</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>771.995</td>
<td>21.444</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[ H_0^8 \] There would be no significant difference in means of scores for the Communication dimension of the P.A.I.Q. between junior secondary-school principals trained in educational administration and junior secondary school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis.

The computed F value for the analysis was 0.013. With 35 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.17 was needed for significance at the 0.05 level the computed F value was smaller than the tabulated F value, therefore the hypothesis \( H_0^8 \) could not be rejected. Data relevant to this hypothesis are summarized in Table XXII.
TABLE XXII

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE COMMUNICATION DIMENSION OF THE P.A.I.Q. BETWEEN JUNIOR SECONDARY-SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR SECONDARY-SCHOOL PRINCIPALS NOT TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>0.346</td>
<td>0.346</td>
<td>0.013</td>
<td>0.91</td>
</tr>
<tr>
<td>Within Groups</td>
<td>35</td>
<td>941.059</td>
<td>26.887</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>941.405</td>
<td>26.150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means of scores for the General Administrative Behavior dimension of the P.A.I.Q. between junior secondary school principals trained in educational administration and junior secondary-school principal not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.012. With 35 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.17 was needed for significance at the 0.05 level the computed F value was smaller than the tabulated F value, therefore the hypothesis (H₀) could not be rejected. Data relevant to this hypothesis are summarized in Table XXIII.
TABLE XXIII

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE GENERAL ADMINISTRATIVE BEHAVIOR DIMENSION OF THE P.A.I.Q. BETWEEN JUNIOR SECONDARY SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR SECONDARY-SCHOOL PRINCIPALS NOT TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>0.245</td>
<td>0.245</td>
<td>0.012</td>
<td>0.91</td>
</tr>
<tr>
<td>Within Groups</td>
<td>35</td>
<td>741.676</td>
<td>21.191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>36</td>
<td>741.921</td>
<td>20.609</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means of scores for the Educational Leadership dimension of the P.A.I.Q. between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.571. With 35 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.17 was needed for significance at the 0.05 level, the computed F value was smaller than the tabulated F value, therefore the hypothesis ($H_0^{10}$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXIV.
TABLE XXIV

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE EDUCATIONAL LEADERSHIP DIMENSION OF THE P.A.I.Q. BETWEEN JUNIOR SECONDARY-SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR SECONDARY-SCHOOL PRINCIPALS NOT TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>12.897</td>
<td>12.897</td>
<td>0.571</td>
<td>0.54</td>
</tr>
<tr>
<td>Within Groups</td>
<td>35</td>
<td>790.491</td>
<td>22.585</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>26</td>
<td>803.388</td>
<td>22.316</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means for total scores of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for analysis was 0.394. With 61 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \( H_0^{11} \) could not be rejected. Data relevant to this hypothesis are summarized in Table XXV.
TABLE XXV
ANALYSIS OF VARIANCE FOR TOTAL MEAN SCORES OF THE P.A.I.Q. BETWEEN JUNIOR-SENIOR SECONDARY-SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR-SENIOR SECONDARY-SCHOOL PRINCIPALS NOT TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>104.003</td>
<td>104.003</td>
<td>0.394</td>
<td>0.54</td>
</tr>
<tr>
<td>Within Groups</td>
<td>61</td>
<td>16102.782</td>
<td>263.980</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>62</td>
<td>16206.785</td>
<td>261.400</td>
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<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means of scores for the Administrative Decision Making dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for analysis was 0.316. With 61 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore hypothesis \( H_0^{12} \) could not be rejected. Data relevant to this hypothesis are summarized in Table XXVI.
TABLE XXVI

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE
ADMINISTRATIVE DECISION-MAKING OF THE P.A.I.Q.
BETWEEN JUNIOR-SENIOR SECONDARY-SCHOOL
PRINCIPALS TRAINED IN EDUCATIONAL
ADMINISTRATION AND JUNIOR-SENIOR
SECONDARY-SCHOOL PRINCIPALS
NOT TRAINED IN EDUCATIONAL
ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
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<tr>
<td>Between Groups</td>
<td>1</td>
<td>6.119</td>
<td>6.119</td>
<td>0.316</td>
<td>0.58</td>
</tr>
<tr>
<td>Within Groups</td>
<td>61</td>
<td>1180.213</td>
<td>19.348</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>62</td>
<td>1186.332</td>
<td>19.134</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$H_0^{13}$ There would be no significant difference in means of scores for the Communication of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for analysis was 0.034. With 61 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore hypothesis ($H_0^{13}$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXVII.
### TABLE XXVII

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE COMMUNICATION DIMENSION OF THE P.A.I.Q. BETWEEN JUNIOR-SENIOR SECONDARY-SCHOOL PRINCIPALS TRAINED IN EDUCATIONAL ADMINISTRATION AND JUNIOR-SENIOR SECONDARY-SCHOOL PRINCIPALS NOT TRAINED IN EDUCATIONAL ADMINISTRATION

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
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<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>0.659</td>
<td>0.659</td>
<td>0.034</td>
<td>0.85</td>
</tr>
<tr>
<td>Within Groups</td>
<td>61</td>
<td>1200.742</td>
<td>19.684</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>62</td>
<td>1201.401</td>
<td>19.377</td>
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<td></td>
</tr>
</tbody>
</table>

$H_0^{14}$ There would be no significant difference in means of scores for the General Administrative Behavior dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed $F$ value for analysis was 0.169. With 61 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated $F$ value of 4.00 was needed for significance at the 0.05 level. The computed $F$ value was smaller than the tabulated $F$ value, therefore hypothesis ($H_0^{14}$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXVIII.
There would be no significant difference in means of scores for the Educational Leadership dimension of the P.A.I.Q. between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration.

The analysis of variance was employed to test this hypothesis. The computed F value for analysis was 0.723. With 61 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore hypothesis \( H_0^{15} \) could not be rejected. Data relevant to this hypothesis are summarized in Table XXIX.
TABLE XXIX

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>15.603</td>
<td>15.603</td>
<td>0.723</td>
<td>0.60</td>
</tr>
<tr>
<td>Within Groups</td>
<td>61</td>
<td>1317.051</td>
<td>21.591</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>62</td>
<td>1332.653</td>
<td>21.494</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypotheses 16 through 25 were tested by using the t-test. Some data relevant to these hypotheses are shown below in Table XIV (page 141) and in Table XXX (page 161). The mathematical equation used to calculate the t value is presented as follows:

\[ t = \frac{\bar{y}_1 - \bar{y}_2}{ \sqrt{ \frac{S_p^2}{N_1} \left( \frac{1}{N_1} + \frac{1}{N_2} \right)} } \]

\[ \bar{y}_1 = \text{Mean of the first sample} \]
\[ \bar{y}_2 = \text{Mean of the second sample} \]
\[ S_p^2 = \text{Pooled variance of the two samples} \]
\[ S_p^2 = \frac{(N_1 - 1) S_1^2 + (N_2 - 1) S_2^2}{N_1 + N_2 - 2} \]
\[ = 36.83633 \]
\[ S_1^2 = \text{Variance of the first sample} \]
\[ S_2^2 = \text{Variance of the second sample} \]
Where $S_1$ and $S_2$ are standard deviations of the first sample and the second sample respectively

$$N_1 + N_2 - 2 = \text{degrees of freedom}$$

where; $N_1 =$ Size of the first sample,

$N_2 =$ Size of the second sample.

$H_{16}^0$ There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior secondary-school principals and high effective junior-senior secondary-school principals.

The $t$-test was employed to test this hypothesis. The computed $t$ value for the analysis was 0.915. With 26 degrees of freedom, the tabulated $t$ value of 2.056 was needed for significance at the 0.05 level. The computed $t$ value was smaller than the tabulated $t$ value, therefore the hypothesis ($H_{16}^0$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXX.

$H_{17}^0$ There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals and low effective junior-senior secondary-school principals.

The $t$-test was employed to test this hypothesis. The computed $t$ value for the analysis was 3.525. With 26 degrees of freedom, the tabulated $t$ value of 2.056 was needed for significance at the 0.05 level the computed $t$ value was larger than the tabulated $t$ value, therefore the hypothesis ($H_{17}^0$) could be rejected. Data relevant to this hypothesis are summarized in Table XXX.

$H_{18}^0$ There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior secondary-school principals trained in educational administration and high effective junior secondary-school principals not trained in educational administration.
TABLE XXX
MEANS AND STANDARD DEVIATIONS FOR LOW AND HIGH EFFECTIVE CATEGORY OF SECONDARY-SCHOOL PRINCIPALS AS TO TRAINED AND NOT TRAINED IN EDUCATIONAL ADMINISTRATION VARIABLES

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Effective Jr Sec Schl Prins</td>
<td>none</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Effective Jr Sec Schl Prins</td>
<td>4</td>
<td>95.93</td>
<td>10.79</td>
</tr>
<tr>
<td>not trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Effective Jr Sec Schl Prins</td>
<td>none</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Effective Jr Sec Schl Prins</td>
<td>5</td>
<td>157.79</td>
<td>4.25</td>
</tr>
<tr>
<td>not trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Effective Jr-Sr Sec Schl Prins</td>
<td>4</td>
<td>110.06</td>
<td>2.98</td>
</tr>
<tr>
<td>trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Effective Jr-Sr Sec Schl Prins</td>
<td>7</td>
<td>107.87</td>
<td>4.84</td>
</tr>
<tr>
<td>not trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Effective Jr-Sr Sec Schl Prins</td>
<td>2</td>
<td>152.40</td>
<td>3.39</td>
</tr>
<tr>
<td>trained in Ed Ad</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Effective Jr-Sr Sec Schl Prins</td>
<td>10</td>
<td>156.10</td>
<td>6.64</td>
</tr>
<tr>
<td>not trained in Ed Ad</td>
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<td></td>
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</tr>
<tr>
<td>Pooled Variance</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>32</td>
<td>(S^2)</td>
<td>36.83633</td>
</tr>
<tr>
<td></td>
<td></td>
<td>df</td>
<td>26</td>
</tr>
</tbody>
</table>
Due to the lack of data, there was no junior secondary-school principal trained in educational administration in the high effective category. Therefore, this hypothesis could not be tested.

$H_{19}^0$ There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals trained in educational administration and low effective junior secondary-school principals not trained in educational administration.

Due to the lack of data, there was no junior secondary-school principal trained in educational administration in the low effective category. Therefore, this hypothesis could not be tested.

$H_{20}^0$ There would be no significant difference in means for the total scores of the P.A.I.Q. between high effective junior-senior secondary-school principals trained in educational administration and high effective junior-senior secondary-school principals not trained in educational administration.

The $t$-test was employed to test this hypothesis. The computed $t$ value for the analysis was 0.565. With 26 degrees of freedom, the tabulated $t$ value of 2.056 was needed for significance at the 0.05 level. The computed $t$ value was smaller than the tabulated $t$ value, therefore the hypothesis ($H_{20}^0$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXX.

$H_{21}^0$ There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior-senior secondary-school principals trained in educational administration and low effective junior-senior secondary-school principals not trained in educational administration.

The $t$-test was employed to test this hypothesis. The computed $t$ value for the analysis was 0.772. With 26 degrees of freedom, the tabulated $t$ value of 2.056 was needed for significance at the 0.05 level. The computed $t$ value was smaller than the tabulated $t$ value,
therefore the hypothesis \((H_{21}^o)\) could not be rejected. Data relevant to this hypothesis are summarized in Table XXX.

\(H_{22}^o\) There would be no significant difference in means for the total score of the P.A.I.Q. between high effective junior secondary-school principals not trained in educational administration and high effective junior-senior secondary-school principals not trained in educational administration.

The \(t\)-test was employed to test this hypothesis. The computed \(t\) value for the analysis was 0.497. With 26 degrees of freedom, the tabulated \(t\) value of 2.056 was needed for significance at the 0.05 level. The computed \(t\) value was smaller than the tabulated \(t\) value, therefore the hypothesis \((H_{22}^o)\) could not be rejected. Data relevant to this hypothesis are summarized in Table XXX.

\(H_{23}^o\) There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principals not trained in educational administration and low effective junior-senior secondary-school principals not trained in educational administration.

The \(t\)-test was employed to test this hypothesis. The computed \(t\) value for the analysis was 3.078. With 26 degrees of freedom, the tabulated \(t\) value of 2.056 was needed for significance at the 0.05 level. The computed \(t\) value was larger than the tabulated \(t\) value, therefore the hypothesis \((H_{23}^o)\) could be rejected. Data relevant to this hypothesis are summarized in Table XXX.

\(H_{24}^o\) There would be no significant difference in means for the total scores of the P.A.I.Q. between low effective junior secondary-school principal trained in educational administration and junior-senior secondary-school principals trained in educational administration.

Due to the lack of data, there was no junior secondary school principal trained in educational administration in the low effective category. Therefore, this hypothesis could not be tested.
There would be no significant difference in means for the scores of the P.A.I.Q. between high effective junior secondary-school principals trained in educational administration and high effective junior-senior secondary school principals trained in educational administration.

Due to the lack of data, there was no junior secondary school principal trained in educational administration in the high effective category. Therefore this hypothesis could not be tested.

Testing Related Hypotheses

The review of literature, concerning the secondary-school principals' administrative effectiveness, indicated several possible hypotheses that could be tested or retested using the data gathered in this study. These hypotheses are stated with the analysis of the results as follows:

\[ H_0^{25} \] There would be no significant difference in means for the total scores of the P.A.I.Q. between (total junior and junior-senior) secondary-school principals who had had a shorter period of administrative experience and (total junior and junior-senior) secondary-school principals who had had a longer period of administrative experience.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.798. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \( H_0^{26} \) could not be rejected. Data relevant to this hypotheses are summarized in Table XXXI.
TABLE XXXI

ANALYSIS OF VARIANCE FOR MEANS OF SCORES OF THE P.A.I.Q. BETWEEN SECONDARY-SCHOOL PRINCIPALS WHO HAD HAD A LONGER PERIOD OF ADMINISTRATIVE EXPERIENCE AND SECONDARY-SCHOOL PRINCIPALS WHO HAD HAD A SHORTER PERIOD OF ADMINISTRATIVE EXPERIENCE

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>219.463</td>
<td>219.463</td>
<td>0.798</td>
<td>0.62</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>26952.096</td>
<td>275.021</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>27171-559</td>
<td>274.460</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means for the total scores of the P.A.I.Q. between (total junior and junior-senior) secondary-school principals who had had a longer period of teaching experience and (total junior-senior) secondary-school principals who had had a shorter period of teaching experience.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 0.202. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis ($H^2_0$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXXII.
TABLE XXXII

ANALYSIS OF VARIANCE FOR MEANS OF SCORES OF THE P.A.I.Q. BETWEEN SECONDARY-SCHOOL PRINCIPALS WHO HAD HAD A LONGER PERIOD OF TEACHING EXPERIENCE AND SECONDARY-SCHOOL PRINCIPALS WHO HAD HAD A SHORTER PERIOD OF TEACHING EXPERIENCE

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
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<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
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</thead>
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<tr>
<td>Between Groups</td>
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<td>55.747</td>
<td>55.747</td>
<td>0.202</td>
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<tr>
<td>Within Groups</td>
<td>98</td>
<td>27115.811</td>
<td>276.692</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>27171.559</td>
<td>274.460</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference in means for the total scores of the P.A.I.Q. between younger (junior and junior-senior) secondary school principals and older (junior and junior senior) secondary-school principals.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 4.666. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the 0.05 level. The computed F value was larger than the tabulated F value, therefore, the hypothesis ($H_0^{28}$) could be rejected. Data relevant to this hypothesis are summarized in Table XXXIII.
TABLE XXXIII
ANALYSIS OF VARIANCE FOR TOTAL MEAN SCORES OF THE P.A.I.Q. BETWEEN YOUNGER SECONDARY-SCHOOL PRINCIPALS AND THE OLDER ONES

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>1235.011</td>
<td>1235.011</td>
<td>4.666*</td>
<td>0.03</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>25936.548</td>
<td>264.659</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>27171-559</td>
<td>274.460</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level.

There would be no significant difference in means of scores for the Administrative Decision-Making dimension of the P.A.I.Q. between younger secondary school principals and the older ones.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 6.533. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the .05 level. The computed F value was larger than the tabulated F value, therefore the hypothesis ($H_0^{28a}$) could be rejected. Data relevant to this hypothesis are summarized in Table XXXIV.
TABLE XXXIV


<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>123.503</td>
<td>123.503</td>
<td>6.533**</td>
<td>0.01</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>1852.648</td>
<td>18.905</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>1976.151</td>
<td>19.967</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

** Significant at .05 and .025 levels.

\( H^2_{28b} \) There would be no significant difference in means of scores for the Communication dimension of the P.A.I.Q. between younger secondary school principals and the older ones.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 4.644. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the .05 level. The computed F value was larger than the tabulated F value, therefore the hypothesis \( H^2_{28b} \) could be rejected. Data relevant to this hypothesis are summarized in Table XXXV.
TABLE XXXV


<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>97.219</td>
<td>97.219</td>
<td>4.644*</td>
<td>0.03</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>2051.800</td>
<td>20.937</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>2149.020</td>
<td>21.707</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level.

There would be no significant difference in means of scores for the General Administrative Behavior dimension of the P.A.I.Q. between younger secondary-school principals and the older ones.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 4.353. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the .05 level. The computed F value was larger than the tabulated F value, therefore the hypothesis \( H_o^{28c} \) could be rejected. Data relevant to this hypothesis are summarized in Table XXXVI.
TABLE XXXVI

ANALYSIS OF VARIANCE FOR MEANS OF SCORES FOR THE GENERAL ADMINISTRATIVE BEHAVIOR DIMENSION OF THE P.A.I.Q. BETWEEN YOUNGER SECONDARY-SCHOOL PRINCIPALS AND THE OLDER ONES

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>85.421</td>
<td>85.421</td>
<td>4.353*</td>
<td>0.04</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>1922.918</td>
<td>19.622</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>2008.339</td>
<td>20.286</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level.

H$_{28d}^o$ There would be no significant difference in means of scores for the Educational Leadership dimension of the P.A.I.Q. between younger secondary-school principals and the older ones.

Analysis of variance was employed to test this hypothesis. The computed F value for the analysis was 1.095. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at the .05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis (H$_{28d}^o$) could not be rejected. Data relevant to this hypothesis are summarized in Table XXXVII.
TABLE XXXVII


<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>23.851</td>
<td>23.851</td>
<td>1.095</td>
<td>0.30</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>2135.618</td>
<td>21.792</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>2159.470</td>
<td>21.813</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There would be no significant difference means for the score total of the P.A.I.Q. between male (junior and junior-senior) secondary school principals and female (junior and junior-senior) secondary-school principals.

Analysis of variance was employed to test this hypothesis and the results are indicated in Table XXXVIII.
### TABLE XXXVIII
ANALYSIS OF VARIANCE FOR TOTAL MEAN SCORES OF THE PERCEPTIONS OF ADMINISTRATIVE INTERACTION QUESTIONNAIRE BETWEEN MALE AND FEMALE SECONDARY-SCHOOL PRINCIPALS

<table>
<thead>
<tr>
<th>Sources</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F (Computed)</th>
<th>Prob. &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>0.400</td>
<td>0.400</td>
<td>0.001</td>
<td>0.97</td>
</tr>
<tr>
<td>Within Groups</td>
<td>98</td>
<td>27171.159</td>
<td>277.257</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>99</td>
<td>27171.559</td>
<td>274.460</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The computed F value for the analysis was 0.001. With 98 denominator degrees of freedom and 1 numerator degree of freedom, the tabulated F value of 4.00 was needed for significance at 0.05 level. The computed F value was smaller than the tabulated F value, therefore the hypothesis \( H_0^{29} \) could not be rejected.
CHAPTER V

SUMMARY, DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

This chapter presents a summary of the procedures used in this study, a summary of the findings from the preceding chapter, discussion, and conclusions of this study. Recommendations and suggestions for further study are also made.

Summary of the Procedures Used in This Study

This study was undertaken to determine; (1) if junior secondary-school principals differed significantly in their administrative performance from junior-senior secondary-school principals; (2) if secondary-school principals trained in educational administration differed significantly in their administrative performance from secondary-school principals not trained in educational administration; and (3) if high or low effective secondary-school principals of both school organizational levels and trained or not trained in educational administration differed significantly in their administrative performance from high or low secondary-school principals, on the basis of the Perceptions of Administrative Interaction Questionnaire.
Effective administrative performance of each secondary-school principal was operationally defined for this study as the ratings given principals by randomly selected, full-time members of their teaching staff on the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.).

The initial sample for this study included all public junior and junior-senior secondary-school principals of Educational Region I in Thailand. The final sample consisted of 37 junior secondary-school principals and 63 junior-senior secondary-school principals. Respondents included 370 junior secondary-school teachers and 630 junior-senior secondary-school teachers.

The gathering of data was a two-phased process. Phase one, the gathering of demographic data of each principal, was done through a 11-item questionnaire completed by each principal. Phase two, the rating of the principals as to their administrative effectiveness, was achieved through the ratings of the principals on the four dimensions of the P.A.I.Q. by ten randomly selected teachers from the principals' faculty members.

Trained and not trained secondary-school principals in educational administration were classified by the following considerations:

1. Any junior and junior-senior secondary-school principals who had had educational administration as the major field of study in undergraduate or graduate level or in both levels, were classified as secondary-school principals trained in educational administration.

2. Any junior and junior-senior secondary-school principals who had not had educational administration as the major field of
study in both undergraduate and graduate levels, were classified as secondary-school principals not trained in educational administration.

The comparison groups, high effective and low effective principals, were determined by the use of the Statistical Analysis System (SAS) Computer Program. Those junior or junior-senior secondary-school principals whose mean score totals for the P.A.I.Q. were one standard deviation or more above the mean score totals for their groups, were classified as high effective principals. Those junior or junior-senior secondary-school principals whose mean score totals for the P.A.I.Q. were one standard deviation or more below the mean score totals for their groups, were classified as low effective principals. Thus, high effective and low effective groups of secondary-school principals were determined by a relative measure of effectiveness; the relationship of the standard deviation and the mean scores for their respective sample.

One-way analysis of variance and the t-test were used to measure the differences, if any, between the high and low effective secondary-school principals, trained and not trained in educational administration secondary-school principals, and between the two organizational levels of secondary-school principals, based on the total mean scores of the P.A.I.Q. and the mean scores of each dimension of the P.A.I.Q. These two statistical techniques were separately used because of the different output of the SAS Computer Program which was directed to work according to the needs of each hypothesis of this study.
Summary of the Findings

All hypotheses and related hypotheses of this study were tested. The testing results of each hypothesis could be summarized as follows:

1. There were no significant differences in administrative performance between junior and junior-senior secondary-school principals based on:
   a) total mean scores of the P.A.I.Q.,
   b) means of scores for each of the four dimensions—Administrative Decision-Making, Communication, General Administrative Behavior, and Educational Leadership of the P.A.I.Q.

2. There were no significant differences in administrative performance between junior secondary-school principals trained in educational administration and junior secondary-school principals not trained in educational administration based on:
   a) total mean scores of the P.A.I.Q.,
   b) means of scores for each of the four dimensions—Administrative Decision-Making, Communication, General Administrative Behavior, and Educational Leadership of the P.A.I.Q.

3. There were no significant differences in administrative performance between junior-senior secondary-school principals trained in educational administration and junior-senior secondary-school principals not trained in educational administration based on:
   a) total mean scores of the P.A.I.Q.,
b) means of score for each of the four dimensions—Administrative Decision-Making, Communication, General Administrative Behavior, and Educational Leadership of the P.A.I.Q.

4-A. There were no significant differences in administrative performance based on the total mean scores of the P.A.I.Q. between:

a) high effective junior and high effective junior-senior secondary-school principals,

b) high effective junior-senior secondary-school principals trained in educational administration and high effective junior-senior secondary-school principals not trained in educational administration,

c) low effective junior-senior secondary-school principals trained in educational administration and low effective junior-senior secondary-school principals not trained in educational administration.

d) high effective junior secondary-school principals not trained in educational administration and high effective junior-senior secondary-school principals not trained in educational administration.

4-B. Based on the total mean scores of the P.A.I.Q., the findings indicated that:

a) low effective junior-senior secondary-school principals received significantly higher ratings in administrative performance than did low effective junior secondary-school principals.
b) low effective junior-senior secondary-school principals not trained in educational administration received significantly higher ratings in administrative performance than did low effective junior secondary-school principals not trained in educational administration.

4-C. Due to the lack of the relevant data in $H^0_{18}, H^0_{19}, H^0_{24}$, and $H^0_{25}$, these hypotheses could not be tested.

5. There were no significant differences in administrative performance based on the total mean scores of the P.A.I.Q. between secondary-school principals who had had a longer period of administrative experience and the ones who had had a shorter period of administrative experience. (See the description of longer and shorter periods of administrative experience on pages 9-10).

6. There were no significant differences in administrative performance based on the total mean scores of the P.A.I.Q. between secondary-school principals as to their periods, longer and shorter, of teaching experience. (See the description of longer and shorter periods of teaching experience on page 10).

7. Younger secondary-school principals received significantly higher ratings in administrative performance than did older secondary-school principals based on:

a) total mean scores of the P.A.I.Q.,
b) means of scores for three dimensions—Administrative Decision-Making, Communication, and General Administrative Behavior of the P.A.I.Q.

(See the description of younger and older secondary school principals on page 10).

8. There were no significant differences in administrative performance based on the total mean scores of the P.A.I.Q. between secondary-school principals as to their sexes, male and female.

Conclusions

From the findings of this study, the following conclusions may be reached:

1. Secondary school principals trained in educational administration did not differ significantly in their administrative performance from secondary school principals not trained in educational administration.

2. Junior secondary-school principals did not differ significantly in their administrative performance from junior-senior secondary-school principals.

3. High effective junior secondary-school principals did not differ significantly in their administrative performance from high effective junior-senior secondary-school principals.

4. Low effective junior secondary-school principals did not differ significantly in the administrative performance from low effective junior-senior secondary school principals.

5. Secondary-school principals with a longer period of administrative and teaching experience did not differ significantly
from secondary-school principals with a shorter period of administrative and teaching experience.

6. Younger secondary-school principals received significantly higher ratings in administrative performance than did the older secondary school principals.

7. Male secondary-school principals did not differ significantly in their administrative performance from female secondary-school principals.

Discussion

The researcher began the study with the supposition that the secondary-school principals trained in educational administration would do a better job than the ones not trained in educational administration. This supposition seemed reasonable because, in Thailand, most secondary-school principals were appointed to this position based upon the heavy consideration of rank in civil service, years of administrative and teaching experience, and college degrees, rather than the proper expertise from an appropriate educational background. The researcher believed that experience alone would not make school principals or any other kinds of administrators meet the maximal level of administrative effectiveness. Instead it was thought that the combination of the theory and the proper expertise from educational background and experience would allow school principals or any other kinds of administrator, executives, managers a wide range of opportunity to meet the maximal level of administrative effectiveness. It was, therefore, expected that secondary-school principals trained in educational administration would receive significantly higher ratings
in administrative performance than did the ones not trained in educational administration.

Since the findings revealed a tendency quite different from the researcher's expectation, the researcher was led to the following discussion.

1. The criterion to evaluate or measure the effectiveness of the individual is very complex. Required is a very appropriate instrument with a proper and effective set of respondents or users. It seems that the instrument, the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.), used in this study did not work well with the respondents in Thailand. This might be due to: (a) cultural differences, (b) differences in job-orientation of the Thai secondary-school principals, (c) differences in teachers' attitude toward the principalship, (d) differences in school functions, and (e) still other possible factors. These factors might reduce the ability of this instrument in measuring the effectiveness of the Thai secondary-school principals.

2. It may be that the sample (25 Thai students in the State of Oklahoma) of the pilot-study was not quite large enough to evaluate the accuracy of the translation of the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.) or teachers' Questionnaire. In terms of seeking for more accuracy and more meaningfulness of the P.A.I.Q. in the study, the sample of the pilot-study might have been larger and the feedback form could have allowed a wide range of criticism.
3. It seems that this is the first study that has ever been conducted in Thailand concerning the effectiveness of secondary-school principals. Findings from only one study could not allow strong conclusion statements. A series of studies should be conducted before the final conclusions might be made. Effectiveness of secondary-school principals should be measured and evaluated by superordinates (e.g., provincial superintendent, district superintendent, regional superintendent, supervisors), assistant principals, vice principals, parents, and students as well. The instruments used should be developed appropriately with the nature and role of the Thai secondary-school principals in mind, and considering the nature and feelings of each group of respondents mentioned above. If this study is to be replicated with the same instrument, the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.) should be redeveloped in accordance with the nature and role of Thai secondary-school principals, in order to assess the true feelings of the Thai teachers toward their principals.

4. Each principal was asked to randomly choose ten teachers in his school under the direction provided by the researcher. One could question whether or not the principal did it, or did it properly. If not, the response from each teacher could possibly bias the findings of this study.

It should be noted that this study received tremendous cooperation and assistance from everyone involved. Approximately 84 per cent of the questionnaires were returned. This number indicated the
success and goodness of this research study in terms of effective support and interest from the principals and teachers in Thailand.

Although, in the last analysis, training in educational administration failed to be accepted as the supplementary element that made secondary-school principals perform in a very superior fashion in school administration, it still should be considered as a crucial qualification that the secondary-school principals should possess. The Ministry of Education should consider formal preparation as an important factor in the appointment procedure of secondary-school principals to the Thai public secondary schools.

Evaluation of the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.)

The researcher perceived some advantages and disadvantage of the P.A.I.Q. during this study. They are listed in the following sections:

1. Advantages were:

a) The questions and statements are precise and easy to understand so that the willing and enthusiastic respondents could complete them within 15 minutes, or not more than 20 minutes.

b) The questions and statements are grouped into four categories which allow a wider range of administrative behavior to be considered. Each category reveals a general administrative dimension which should be possessed by secondary-school principals. Each question or state-
ment indicates a function of the schools and a responsibility of the principal.

c) The questions and statements seek only information which cannot be obtained from other sources such as school reports or census data.

d) The questions and statements are objective with no leading suggestions as to the responses desired.

2. Disadvantages were:

a) Some questions and statements are not directly related to Thai school functions and principals' responsibility. For example, item 26 (An effective system of providing special education services for the pupils is supported and maintained), and item 28 (Experimentation and new approaches in instruction occur reasonably often) have, to date, not been of particular importance in Thai schools, because all support and decisions always come from the central unit, the Ministry of Education.

b) It seems that the translation of the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.), including the pilot-study of this questionnaire, is a very difficult process which requires a lot of effort and time.

c) The scale values employed are unusual and different from many Likert-type summated rating scales. The scale values should consist of an odd number instead of an even. This problem leads to some difficulty of statistical analysis, if computed by hand.
In view of these considerations and noted weakness and strengths, this writer still recommends further refinement and continued use of the P.A.I.Q. for research in Thailand, and anywhere else.

Recommendations and Suggestions for the Further Study

The results of this study have indicated the need for further investigation in the following areas:

1. It is recommended that research should be continued to determine if there are any differences between junior and junior‐senior secondary-school principals as to their roles, expectations, personalities, and tasks.

2. It is suggested that a study should be done to determine the relationship of academic training and educational experience to administrative effectiveness of secondary‐school principals where the perceptions of both superordinates and subordinates are used to determine the administrative effectiveness of the principals.

3. It is suggested that a need for the development of a new dynamic measurement of administrative effectiveness should be developed. The results of this study and the results of other studies have shown the fallibility of measures commonly used.

4. It is recommended that research should be conducted to develop preparatory experiences to meet the performance demands as determined by the new dynamic measurement mentioned above.
5. It is suggested that the translation of the questionnaire, if there will be another study in non-English speaking country, should be more careful, bending every effort to get more accuracy in words, and to cover all words in the English version. Another pilot-study should be conducted for those purposes.

A Final Statement

Education is a crucial factor used for improving the well-being of the people and increasing the economic prosperity of the country involved. No nation in the modern world with an illiterate population has achieved even a minimal standard of people's well-being and improved its economic growth. It is believed that education has provided not only material benefits to the people, but also spiritual benefits. It can help promote mutual understanding, sincere cooperation, and peace among people throughout the world.

Effective leaders must believe that the survival and progress of their countries depend as never before upon the educational quality of their fellow citizens. School is the common place where people can fulfill their needs with several basic and proper types of education. The school principal is one of the most important persons whose knowledge and skills will make the school and the educational program attractive to people. Therefore, a close look should be directed toward a nation's school principals in terms of their administrative effectiveness.

Thailand is seeking effective personnel for its educational enterprise, and is attempting to make more effective use of education
in developing its human resources. It is hoped that whenever Thailand has reached these ultimate efforts, then all Thais will have a better quality of life and be able to stop fighting against poverty and unstable political situations, stand on their own feet, and have a better chance to share mutual understanding, sincere and peaceful cooperation with all people in the whole world.

It is sincerely hoped that this small study will aid in this large enterprise!
A SELECTED BIBLIOGRAPHY

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C. Documentaries and Unpublished Materials


Ramseyer, John A., Lewis E. Harris, Millard Z. Pond, and Howard Wakefield, Factors Affecting Educational Administration, Monograph No. 2. Columbus; The Ohio State University, 1955.


Southern States Cooperative Program in Education Administration, Better Teaching in School Administration. Nashville, Tennessee; George Peabody College for Teachers, 1955.


APPENDIX A

A PILOT SET OF THE QUESTIONNAIRES

APPENDIX A-1: Letter Requesting Cooperation from the Participants in the Pilot-Study (pre-test).

APPENDIX A-2: Letter Requesting Cooperation from the Participants in the Pilot-Study (post-test).

APPENDIX A-3: The Perceptions of Administrative Interaction Questionnaire for the Pilot-Study (English and Thai versions).
APPENDIX A-1

Oklahoma State University
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION
STILLWATER, OKLAHOMA 74074

The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region I, Thailand.

The Perceptions of Administrative Interaction Questionnaire

A study designed to explore the perceptions of administrative interaction and effectiveness among secondary school principals as perceived by teachers in Region I, Thailand. The study utilized a questionnaire to gather data from teachers in the region. The questionnaire included questions regarding the relationship between academic training, educational experience, and administrative effectiveness. The data was analyzed to determine the extent to which academic training and educational experience influence the perceptions of administrative interaction among teachers. The results indicated that there was a significant relationship between these variables, with teachers perceiving principals who had received more academic training and had more educational experience as being more effective in their administrative roles.

The study findings suggest that improving the academic training and educational experience of secondary school principals could lead to more effective administrative leadership. This could be achieved through providing principals with additional training and professional development opportunities. Teachers' perceptions of administrative interaction and effectiveness were found to be positively influenced by these factors.
ขอตราบใบที่ประกอบมาตามที่กล่าวถึงมาแล้ว เพิ่มเติมขึ้น และบริสุทธิ์โทษ และให้พยาน
หัวเรื่องของข้อความที่มีรายละเอียด เช่น รายละเอียดและความคิดเห็นที่การเป็นไปได้ของสถานการณ์อย่างไร
ขอขอบพระคุณและขอบคุณที่ให้ความไว้วางใจและให้ความร่วมมือในการดำเนินการที่เป็นอย่างดี
ขอแสดงความนับถือ

(นายประเชิญ รักษาวิริย)
The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region I, Thailand.

In a pilot-study conducted during the academic year 1975-76, the reliability of the instrument was determined. The results indicated that the instrument was reliable (reliability). The instrument was then administered to a sample of teachers in Educational Region I, Thailand. The results indicated that the instrument was reliable (reliability).
### THE PERCEPTIONS OF ADMINISTRATIVE INTERACTION QUESTIONNAIRE
*(Teacher's Questionnaire)*

#### 1. Possible problems or issues are anticipated.

<table>
<thead>
<tr>
<th>6</th>
<th>Almost always true in my school</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Usually true in my school</td>
</tr>
<tr>
<td>4</td>
<td>Often true in my school</td>
</tr>
<tr>
<td>3</td>
<td>Sometimes true in my school</td>
</tr>
<tr>
<td>2</td>
<td>Rarely true in my school</td>
</tr>
<tr>
<td>1</td>
<td>Almost never true in my school</td>
</tr>
</tbody>
</table>

#### 2. Situations in the school where real problems exist are recognized and acknowledged.

#### 3. All relevant information is obtained before decisions are made.

#### 4. Sources of information are weighed carefully.

#### 5. All elements relating to problems or issues are taken into account.

---

Notes:

- 6 = Almost always true in my school
- 5 = Usually true in my school
- 4 = Often true in my school
- 3 = Sometimes true in my school
- 2 = Rarely true in my school
- 1 = Almost never true in my school
6. Unique possible solutions are considered for school problems.
7. Possible solutions to a problem are weighed critically.
8. Consideration is given to the important implications of a course of action.
9. Solutions, once agreed upon, reflect critical and logical thinking.
10. Teachers are kept informed of central office policy changes affecting the school.
11. The community and parents are kept aware of the accomplishments of the school and the students.
12. Teachers are kept informed as to how their work is evaluated.
13. Staff members discuss their problems and concerns freely with each other.
14. Teachers and parents feel free to make suggestions for improving the school.
15. Staff members know how people feel about the school and its program.
16. Teachers express their opinions and feeling freely.
17. The staff has a good knowledge of the feelings and opinions of the children about the school.
18. There is good communication between the teachers and other members of the school staff (custodians, cafeteria workers, etc.).
19. Adequate help and supervision are provided for teachers.

20. An effective system of pupil discipline is supported and maintained.

21. Adequate materials needed for instruction are available.

22. Teachers are not overloaded with non-teaching assignments (hall-duty, yard supervision, etc.)

23. After school activities are organized so that they function smoothly.

24. Schedules required for the effective operation of the school are made.

25. Buildings and grounds are maintained in a satisfactory manner.

26. An effective system of providing special education services for the pupils is supported and maintained.

27. There is an adequate system for reporting the progress of pupils to their parents.

28. Experimentation and new approaches in instruction occur reasonably often.

29. There is a constant evaluation of the total learning program.

30. New ideas and information relating to education are regularly discussed.

31. New developments in each instructional area are called to the staff's attention.
32. Information is regularly available on new teaching materials, aids, resources, etc.

33. Current events of significance and importance for the school are regularly discussed.

34. The staff's attention is called to important and interesting articles or publications.

35. Release time is available for teachers to work on special projects or ideas designed to improve the school program (visit schools, work on curriculum committees, attend professional conferences, etc.)

36. High standards of academic achievement and learning are expected to students.

The staff are responsible for ensuring that all teachers are kept informed of new developments and resources that could enhance the school program.
ก้าวแรก

จากภาพผ่านครั้งที่ ๑๖ ข้อในแบบสอบถาม พบความก้าวหน้าของเชิงไอทีจากแหล่ง

เข้าใจและควรแก้ไข สอบถามให้ผู้รับหน้าที่งานรับทราบ ที่กว่า เหมาะสมกับ ฉะนั้น

จงกรอกว่างให้ลงมืออาชีพอันตรึงที่อยู่ในคุณ

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APPENDIX B

LETTERS REQUESTING PERMISSION

AND COOPERATION

APPENDIX B-1: Letter Requesting Permission and Cooperation from the Under-Secretary of the Ministry of Education.

APPENDIX B-2: Letter from the Chairman of the Doctoral Committee to the Under-Secretary of the Ministry of Education.

APPENDIX B-3: Letter Requesting Cooperation from the Director-General of the Department of General Education.

APPENDIX B-4: Letter from the Thesis Adviser to the Director-General of the Department of General Education.
APPENDIX B-1

Oklahoma State University
DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION
STILLWATER, OKLAHOMA 74074

The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region I, Thailand

Praphai Puangsri

Oklahoma State University
STILLWATER, OKLAHOMA 74074
GUNDERSEN HALL
(405) 372-6211, EXT. 6461

This study examined the relationship of academic preparation and educational experience to the administrative effectiveness of secondary school principals as perceived by teachers in Educational Region I, Thailand. The study utilized a survey methodology involving the administration of a questionnaire to a sample of 200 teachers in the region. The data was analyzed using descriptive and inferential statistical techniques.

The results indicated a positive relationship between academic preparation and educational experience and administrative effectiveness. Teachers perceived principals with more academic preparation and educational experience to be more effective administrators. The findings suggest that schools may benefit from selecting principals with strong academic backgrounds and extensive educational experience.

The study also highlighted the importance of ongoing professional development for current principals. Teachers expressed a need for more opportunities to enhance their own academic and educational competencies.

Recommendations for future research include investigating the impact of cultural and contextual factors on the relationship between preparation, experience, and administrative effectiveness. Additionally, studies could explore the perceptions of non-teaching staff and students on the effectiveness of secondary school principals.
แนะนำให้ผู้เขียนเสนอแนะความไม่พอใจเกี่ยวกับงาน ๆ และเกี่ยวกับการอธิบายและตระหนักไปในระยะ
สำนัก ไม่ควรขณะความจะต้องการจากผู้บริหาร ฝ่ายบริหาร รวมถึงผู้บริหารที่ก้าวหน้าและพนักงานที่จะมีการปรับปรุงการ
บริการที่มีอยู่แล้วให้สอดคล้องกับการพัฒนา 
การบริการ *

***

หมาย ๆ กิจการต้องรับผิดชอบความผิดพลาดไม่ได้รับผลลัพธ์ดังกล่าว แต่ข้อเสนอแนะของพวกเรานั้น

ขอขอบคุณ Dr. Kenneth St. Clair แห่ง Oklahoma State University ที่ให้การส่งเสริมและพัฒนา

(นายประจุ รองคณบดี)
Mr. Jaroon Wongsayan  
Under-Secretary  
Office of the Under-Secretary  
Ministry of Education  
Rajadammern-nai Ave.,  
Bangkok, THAILAND  

Dear Mr. Wongsayan:

Mr. Prachoom Rodprasert is a graduate student in the Department of Educational Administration and Higher Education, Oklahoma State University. He is now doing his research study under my chairmanship. The title of his dissertation is "The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region I, Thailand". The intent of this study is to determine if secondary school principals who have had academic training in educational administration differ significantly from those who have not. It is hoped that this study will be meaningful to Thailand's future educational improvement.

The plan for this study will involve the school principals and the teachers of public secondary schools in Educational Region I. The principal and teachers in each school will be asked to respond to different questionnaires. Further information about the design of the study and questionnaires has been enclosed.

On behalf of the Department of Educational Administration and Higher Education, College of Education at Oklahoma State University, I would like to ask for your cooperation and assistance to this study. I am extremely aware of your very busy schedule, but your kind cooperation, assistance, and above all your approval will help Mr. Prachoom Rodprasert to do his research study successfully.

I would appreciate your acceptance of my request for cooperation and assistance. If you need more information or you have any questions that you would like to have answered before acting upon my request, please feel free to write or contact me directly. I am looking forward to hearing from you as soon as possible. Thank you in advance for your time and kind consideration on this matter.

All best wishes.

Respectfully yours,

Kenneth St. Clair, Acting Head  
Department of Administration and Higher Education
APPENDIX B-3

Oklahoma State University
DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND HIGHER EDUCATION
STILLWATER, OKLAHOMA 74074

Title:
The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region 1, Thailand.

Abstract:

The present study was conducted to determine the relationship of academic training and educational experience to the administrative effectiveness of secondary school principals as perceived by teachers in Educational Region 1, Thailand. The study included a sample of 200 teachers from 20 secondary schools in Educational Region 1. The data were collected through a questionnaire survey. The results indicated that academic training and educational experience were positively correlated with the administrative effectiveness of secondary school principals. The study recommended that future research should focus on the implementation of innovative educational programs and the provision of ongoing professional development opportunities for secondary school principals in Educational Region 1.

Keywords:

References:


Acknowledgments:

Special thanks to the teachers and administrators in Educational Region 1 for their cooperation and support during the study.
การจัดให้รู้จักแหล่งข้อมูลใหม่สร้างแรงประคอง ๆ และเกี่ยวกับข้อมูลที่ใช้ทดสอบไปในระบบ
แนะนึ้น ที่มาของคำสั่งสถิติมีที่มาจากสถานที่ นามเรียดหัว ที่สอดคล้อง มะะหมายความสำคัญของ
และการตัดสินใจตามมาตรฐานที่จะให้ประโยชน์สำหรับการเรียนรู้วิทยาการคอมพิวเตอร์
ที่ย่อมดีมากกว่า

พยาม ๆ ที่มีมูลนิธิเยี่ยมและจะให้บริการสื่อสารความข้อมูลดังกล่าวให้เป็นการarkan
ที่สำคัญให้เกิดจากการเรียนรู้วิทยาการคอมพิวเตอร์ (Dr. Carl R. Anderson) ที่มีมูลค่าใน ระบบนั้น
ที่สำคัญในความรู้และความคิดของปัจจุบัน

ขอแสดงความเคารพและนับถือ

(นามประจุ ระบบที่เรียบ)
November 24, 1975

Mr. Saman Saengmali
Director-General
Department of General Education
Ministry of Education
Rajadamnern - Nai Ave.,
Bangkok, THAILAND

Dear Mr. Saengmali:

Mr. Prachoom Rodprasert is a graduate student in the Department of Educational Administration and Higher Education at the Oklahoma State University. Mr. Rodprasert is presently engaged in research related to his dissertation which is titled, "The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region I, Thailand." The intent of the study is to determine if secondary school principals who have received academic training in educational administration differ significantly from those principals who have not.

In order to employ the methodology of the study, principals and teachers in Educational Region I will be asked to respond to questionnaires. It is my understanding that Dr. St. Clair, Acting Head of the Department of Educational Administration and Higher Education, has written to you and provided you with information concerning the design of the study as well as copies of the questionnaires which will be used in the study.

It would be very helpful to this study if you could lend your cooperation and assistance to it. To be sure, your approval of this study is absolutely necessary. Any assistance you could provide in this matter would be greatly appreciated.

Should you have any questions or need additional information, please contact me. Thank you in advance for your assistance in the matter.

Sincerely,

Carl R. Anderson
Associate Professor
Department of Administration and Higher Education
APPENDIX C

A SET OF QUESTIONNAIRES FOR
THE PRINCIPAL

APPENDIX C-1: Letter from the Under-Secretary to Participating Principal.

APPENDIX C-2: Letter from the Researcher to the Principal.

APPENDIX C-3: Table of Random Numbers.

APPENDIX C-4: Principal's Questionnaire in Thai.

APPENDIX C-4*: Principal's Questionnaire in English.
เรื่อง ข้อความรวมเอาข้อมูลเพิ่มเติมในการทำวิทยานิพนธ์
เรียน อาจารย์ใหญ่ หรือผู้ช่วยอาจารย์ ร.ร.มหาวิทยาลัยในเขตกรุงศรี

ทนายนายประชุม ยอดประสงค์ นักศึกษาระดับบัณฑิตศึกษา แห่ง Oklahoma State University สมัครเป็นสมาชิก คณะกรรมการช่วยพัฒนาการฯ ข้ามแผนที่แสดงแผนการข้ามปีไทย
หรือข้ามปีการ เพื่อประกอบการเรียนวิทยานิพนธ์ และนำข้อมูลมาสรุปความสัมพันธ์ของมันที่มี
กระทำการศึกษาจริง ได้เสนอแนวทางในการเทียบ ติดต่อกับที่เป็นอยู่

กระทรวงศึกษาธิการ โดยมอบหมายไปยังหน่วยงานต่างสังกัด ที่เป็นอยู่

กระทรวงศึกษาธิการ ได้พิจารณาแล้วเห็นว่า วิทยานิพนธ์นี้จะเป็นประโยชน์แก่
กรณีการ จึงเรียนมาเพื่อโปรดทราบความรวมไปต่อไปที่

ขอแสดงความนับถือ (อย่างสูง)


d ทร. ต. 

(นายสุวิน วงศ์เกษียณ)

ปลัดกระทรวงศึกษาธิการ

กองนักวิจารณ์ สำนักงานปลัดกระทรวง

โทร. 081-987-6543
The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Received by Teachers in Educational Region I, Thailand.

- The study examines the relationship between academic training and educational experience and the administrative effectiveness of secondary school principals as perceived by teachers in Educational Region I, Thailand.

- The methodology involves the use of random numbers (Table of Random Numbers) to select a sample of schools for the study.

- The study findings suggest that there is a positive relationship between academic training, educational experience, and administrative effectiveness among secondary school principals.

- The results highlight the importance of continuous professional development for principals to enhance their administrative effectiveness.

- Recommendations include the provision of adequate resources and support for principal development programs to improve educational outcomes.

- The study contributes to the understanding of leadership and management in the Thai educational system.
หรือ 61, 22, 42, 91, 46, 51, 80, 06, 14, 95.
หรือ .61, 05, 26, 22, 61, 91, 27, 85, 73, 66.
หรือ 61, 62, 32, 71, 84, 23, 56, 73, 21, 62

เหตุผลที่ต้องใช้วิศวกรรมสารวัตรคือ 1) เทปไฟเบอร์สังเคราะห์-อุปกรณ์ที่ตนเองไม่เคย
เสียดศอกต่อแบบสอบถาม 2) เทปไฟเบอร์ที่ใช้ในงานวิศวกรรมจะใช้ในงานทำงานวิศวกรรม
ขณะที่ตนเองไม่เคยทราบ เหลือเกินไปจากคนที่ให้ค่าตอบแบบสอบถาม
โดยวิศวกรรมสารวัตรและโยธาการดำเนินงาน ประกอบด้วยข้อมูลที่สอดคล้องกับอุปกรณ์ที่ทำงานทั้ง 10 ทาน
ตามแบบสอบถาม ซ.

ข. Tên พบสายฟิลิพปฏิบัติตามแบบสอบถาม สารวัตร-อุปกรณ์ที่ทำงานทั้ง
10 ทาน จึงพบว่าการข้อมูลที่สำคัญ ในการทำงานที่อยู่ในงานที่ทำได้ ค่อนข้าง
สิ่งที่ต้องทำอยู่เสมอให้สามารถทำในงานใด นำผลประกอบ

1. คำทอนของทานจัดแบบสอบถาม ก. และ ข. จำนวน 2 แผน หรือ
4 แผนกระบัน

2. คำทอนจากครู-อุปกรณ์ที่ทำงานจำนวน 10 ซอง

ตามสูตรกระชับที่ยอมรับซึ่งเป็นข้อมูลที่สำคัญและเป็นความรวมถึงความสนใจ
ของคนที่อยู่ในงาน ผลจากความร่วมมือของคนที่ทำงานครั้งนี้ นักจัดการจะเรียนได้กระชับ
สำเร็จรูปที่ดีและยังจัดการที่ดีที่สุดในการทำงาน หลักตาม
มีอิสระที่จะทำได้ที่เกี่ยวกับข้อมูลการทำงานและเรียนรู้วิทยานิพนธ์อีกที่
ประสบการณ์ในการทำงานพร้อม

ขอแสดงความนับถืออย่างสูง

(นายประจุ รศ. ประดิพัทธ์)
ไป. ขอขอบคุณที่ให้ความร่วมมือโดยจัดเตรียมแหล่งข้อมูลต่างๆ ที่มีประโยชน์มาก หรือแหล่งข้อมูลที่เกี่ยวข้องกับชีวิตและเรียนรู้ในชีวิตประจำวัน. ขอขอบคุณที่ให้ความร่วมมือ และขอแสดงความนับถือ (กลุ่มอาจารย์บุญ วิเศษ 2519).
**TABLE OF RANDOM NUMBERS**

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Have fun by using this research instrument!
แบบสอบถาม ก.
(แบบสอบถามจากนักศึกษา หรือผู้ที่เกี่ยวข้อง)

ชั้นเรียน จะมีแบบสอบถามถึงเรื่องต่างๆของผู้ติดตาม แต่ละชั้นในแต่ละปี มี
ชั้นเรียน 1 ไปจนถึงชั้นเรียนท้ายสุด (7) ลงในปีของวันบริจาค ซึ่งหากมีการบริจาค
และทะเบียนพิรุป บุคคลที่เกี่ยวข้องจะรับแบบสอบถามเพื่อรับแบบเพิ่ม
ชื่อ - สกุล ........................
โรงเรียน ........................
โรงเรียนของทานเสวย รหัส — มศ. 1 — มศ. 3 ..........................

มศ. 1 — มศ. 5

1. อายุ (ปัจจุบัน)

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<td>36 - 40</td>
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<tr>
<td>41 - 45</td>
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<tr>
<td>46 - 50</td>
<td>ปี</td>
</tr>
<tr>
<td>51 - 55</td>
<td>ปี</td>
</tr>
<tr>
<td>56 - 60</td>
<td>ปี</td>
</tr>
</tbody>
</table>

2. เพศ

ชาย
หญิง

3. ระดับการศึกษาสูงสุด

ประกาศนียบัตรปริญญาตรี (บ.ศ. ตรี)
ประกาศนียบัตรปริญญาโท (บ.ศ. โท)
ปริญญาตรี
ประกาศนียบัตรวิชาเฉพาะ (1 ปี หลังปริญญาตรี)
ปริญญาโท
ปริญญาตรี
ปริญญาโท (20 หน่วยกิต หลังปริญญาตรี)
ปริญญาเอก

อื่น ๆ (ถ้ามี)

4. วิชาเอกในระดับปริญญาตรี หรือประกาศนียบัตรวิชาเฉพาะ

การประถมศึกษา
การมัธยมศึกษา
บริหารการศึกษา
พยาบาลศาสตร์
ศึกษาศาสตร์
วิทยาศาสตร์ (เคมี เคมี ชีววิทยา ฟิสิกส์ ฯลฯ)
ภาษาศาสตร์ (ภาษา อังกฤษ ฝรั่งเศส เบอร์ลิน จีน ฯลฯ)
5. วิชาเอกในระดับปีที่ 2 คือ เอก หรือปีที่ 3 หรือระดับปีที่ 4

<table>
<thead>
<tr>
<th>การประถมศึกษา</th>
<th>ปัจจุบัน ปี ที่ 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>การมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 2</td>
</tr>
<tr>
<td>ปริญญาตรีศึกษา</td>
<td>ปัจจุบัน ปี ที่ 3</td>
</tr>
<tr>
<td>หลักสูตรศึกษา</td>
<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 1</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 2</td>
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<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 3</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 1</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 2</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 3</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
</tbody>
</table>

6. หัวข้อประสบการณ์ในการสอนในโรงเรียนมัธยมศึกษา

<table>
<thead>
<tr>
<th>นักเรียน 5 ปี</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 10 ปี</td>
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<tr>
<td>11 - 15 ปี</td>
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<tr>
<td>16 - 20 ปี</td>
</tr>
<tr>
<td>21 - 25 ปี</td>
</tr>
<tr>
<td>26 - 30 ปี</td>
</tr>
<tr>
<td>31 - 40 ปี</td>
</tr>
<tr>
<td>มากกว่า 40 ปี</td>
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7. ระดับโรงเรียนที่ผ่านมีประสบการณ์ในการสอน

<table>
<thead>
<tr>
<th>ระดับมัธยมศึกษา</th>
<th>ปัจจุบัน ปี ที่ 1</th>
</tr>
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<tbody>
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<td>ปัจจุบัน ปี ที่ 2</td>
</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 3</td>
</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
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<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 1</td>
</tr>
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<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 2</td>
</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
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</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
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</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 1</td>
</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 2</td>
</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 3</td>
</tr>
<tr>
<td>ระดับมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
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8. วิชาที่ผ่านเคยมีประสบการณ์ในการสอนมัธยมศึกษา

<table>
<thead>
<tr>
<th>การประถมศึกษา</th>
<th>ปัจจุบัน ปี ที่ 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>การมัธยมศึกษา</td>
<td>ปัจจุบัน ปี ที่ 2</td>
</tr>
<tr>
<td>ปริญญาตรีศึกษา</td>
<td>ปัจจุบัน ปี ที่ 3</td>
</tr>
<tr>
<td>หลักสูตร</td>
<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
<tr>
<td>หลักสูตรสาขาวิชาการศึกษา</td>
<td>ปัจจุบัน ปี ที่ 1</td>
</tr>
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<td>หลักสูตรสาขาวิชาการศึกษา</td>
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<td>ปัจจุบัน ปี ที่ 4</td>
</tr>
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</table>
9. ต้นที่ทานจะใคร่แก่ต่างๆ เหมาะสมเข้าตามที่ พร้อมที่จะย้ายที่ ทานและกร่างค้าแม่น

<table>
<thead>
<tr>
<th>ชั้น</th>
<th>ผลผลิตที่ทาน</th>
<th>ผลผลิตที่ทาน</th>
<th>ชั่ง ฯ (ตาราง)</th>
</tr>
</thead>
</table>

10. ทานมีประสบการณ์ในภาระจริงปัจจุบันเริ่มสมการแล้ว

<table>
<thead>
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<th>จำนวน</th>
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<td>21 - 25</td>
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<td>31 - 35</td>
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<tr>
<td>36 - 40</td>
<td></td>
</tr>
<tr>
<td>มากกว่า 40</td>
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</table>

11. ระดับจริงเริ่มที่ทานมีประสบการณ์ในภาระจริง

<table>
<thead>
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<th>ระดับที่ทาน</th>
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<tr>
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<td>บริษัทภาคธุรกิจ</td>
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<tr>
<td>บริษัทภาคธุรกิจ</td>
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<tr>
<td>บริษัทภาคธุรกิจ</td>
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<tr>
<td>ชั่ง ฯ (ตาราง)</td>
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</tbody>
</table>

แบบสุ่มกลุ่ม ก.มีจำนวน 11 ตัวชี้ ช่องว่างมีความมีข้อมูลที่ถูกต้องของทาน
โปรดระบุแบบการดูหากับ (แนว 4) ที่ต่อมาข้าง -- ช่องว่าง -- ระหว่าง 10 ทาน
ในโครงเริ่มของทานในแบบสอบถาม ท.
หน้า 4

แบบสอบถามที่ 2
(ร้อยละครุ 0% อาคาร 10 ห้อง)

สำรวจนักศึกษา ที่ศูนย์ราชการ อาคาร 10 ห้อง โดยใช้บริการสุ่มชั้นบน ไปรษณีย์ด้วยวิธีมีชัยได้ Table of Random Numbers ในการเลือกครุ อาคาร 10 ห้อง ระหว่างเดือน

ผลการสัมภาษณ์ (นักศึกษา 0% อาคาร 10 ห้อง) 4 มีนาคม

ขอขอบพระคุณมากสำหรับการให้ความร่วมมืออย่างมีระเบียบ ขอประทับใจคุณพระ

หุ่นประการ เทียบ
APPENDIX C-4*

PRINCIPAL'S QUESTIONNAIRE
(QUESTIONNAIRE A)

DIRECTIONS: For each of the following questions select the most appropriate answer. Put a mark, X, in the space in front of your selection. Be sure... Please check only one answer.

Your name..................
School's name..................
Organizational level of your school
   ___ M.S. 1-3
   ___ M.S. 1-5

1. Age (in years, as of today)
   ___ under 30
   ___ 30 to 35
   ___ 36 to 40
   ___ 41 to 45
   ___ 46 to 50
   ___ 51 to 55
   ___ 56 to 60

2. Sex
   ___ male
   ___ female

3. The highest level of educational background
   ___ Certificate of Elementary Education
   ___ Certificate of Secondary Education
   ___ Baccalaureate
   ___ Specialist's Certificate (one year beyond Bachelor's degree)
   ___ Master's degree
   ___ Specialist's degree (above Master's degree)
   ___ Doctorate
   ___ Other (specific).............................

4. Undergraduate major
   ___ Elementary Education
   ___ Secondary Education
   ___ Educational Administration
   ___ Physical Education
   ___ Mathematics
   ___ Sciences (e.g., Chemistry, Biology, Physics)
   ___ Languages (e.g., English, French, etc.)
   ___ Social Studies (e.g., Sociology, History, etc.)
   ___ Business
   ___ Other (specific).............................

5. Graduate major
   ___ Elementary Education
   ___ Secondary Education
   ___ Educational Administration
   ___ Physical Education
6. Total number of years of classroom teaching experience

<table>
<thead>
<tr>
<th>Experience Range</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
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<td>26 to 30</td>
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<td>36 to 40</td>
<td></td>
</tr>
<tr>
<td>Over 40</td>
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</tbody>
</table>

7. Organizational level at which you have had the majority of teaching experience

<table>
<thead>
<tr>
<th>Level</th>
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<tbody>
<tr>
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<tr>
<td>Senior highschool</td>
<td></td>
</tr>
<tr>
<td>College or University</td>
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</tr>
<tr>
<td>Other (specific)</td>
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</table>

8. Subject area that was your major teaching responsibility

<table>
<thead>
<tr>
<th>Subject Area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Secondary Education</td>
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<tr>
<td>Educational Administration</td>
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<tr>
<td>Physical Education</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
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<tr>
<td>Sciences</td>
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<tr>
<td>Languages</td>
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<tr>
<td>Social Studies</td>
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</tr>
<tr>
<td>Business</td>
<td></td>
</tr>
<tr>
<td>Other (specific)</td>
<td></td>
</tr>
</tbody>
</table>

9. Before you have been appointed as the principal, you used to work as.....

<table>
<thead>
<tr>
<th>Position</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Principal for Academic Affairs</td>
<td></td>
</tr>
<tr>
<td>Assistant Principal for Administrative or Business Affairs</td>
<td></td>
</tr>
<tr>
<td>Chairman or Head of Subject area</td>
<td></td>
</tr>
<tr>
<td>Staff teacher</td>
<td></td>
</tr>
<tr>
<td>Other (specific)</td>
<td></td>
</tr>
</tbody>
</table>

10. Total number of years of administrative experience

<table>
<thead>
<tr>
<th>Experience Range</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 5</td>
<td></td>
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<tr>
<td>6 to 10</td>
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<td>11 to 15</td>
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<td>31 to 35</td>
<td></td>
</tr>
<tr>
<td>36 to 40</td>
<td></td>
</tr>
<tr>
<td>Over 40</td>
<td></td>
</tr>
</tbody>
</table>
11. Organizational level at which you have had the majority of your administrative experience

- Elementary School
- Junior highschool
- Senior highschool
- College or University
- Other (specific)

This questionnaire is ended here. Thank you very much for your kind cooperation.

PLEASE TURN TO THE LAST PAGE IN ORDER TO LIST 10 NAMES OF YOUR STAFF MEMBERS.
PRINCIPAL'S QUESTIONNAIRE
(QUESTIONNAIRE B)

List of Ten Full-time Staff Members

Please list the first and the last name of ten full-time teachers in your school. Each of which must teach in this school and work with you not less than one academic year. BE SURE, USE THE TABLE OF RANDOM NUMBERS WHICH IS ATTACHED PROMPTLY WITH THIS SET OF QUESTIONNAIRES TO SELECT YOUR STAFF MEMBERS.

1) ........................................
2) ........................................
3) ........................................
4) ........................................
5) ........................................
6) ........................................
7) ........................................
8) ........................................
9) ........................................
10) ........................................

Thank you for your kind assistance and cooperation. PLEASE RETURN THIS SET OF QUESTIONNAIRES (Questionnaire A, and Questionnaire B) TO THE DATA COLLECTOR BY USING THE RETURN ENVELOPE.
APPENDIX D

A SET OF QUESTIONNAIRES FOR
THE TEACHER

APPENDIX D-1: Letter from the Acting Director-General of the Department of General Education to the Participating Principal and Teachers.

APPENDIX D-2: Letter from the Researcher to the Participating Teachers.

APPENDIX D-3: Teacher's Questionnaire—the Perceptions of Administrative Interaction Questionnaire (P.A.I.Q.).
ที่ กท.

กรมสามมณฑล

วัน, วันถัดจากวันที่ 28 ต.ค. 2548

ขอความเห็นเกี่ยวกับการตั้งคณะอนุกรรมการ ขออนุญาตเป็นผู้ใหญ่ตามประกาศของรัฐบาล

เรียน. ก.ร.ท. หน่วยงาน ศูนย์ ชั้น 1 อาคาร 1 พระนคร เพื่อรายงานผลการจัดการเกี่ยวกับการตั้งคณะอนุกรรมการ

ต้องมีหน่วยงาน แผนสกุลที่ จ.จ.อ. วันที่ 3 ต.ค. 2548

ทรงพระประทุม รัตนประทุม บัญชาการรัฐบาล แห่ง มหาวิทยาลัยเกษตรศาสตร์ มหาวิทยาลัยเกษตรศาสตร์ มหาวิทยาลัยเกษตรศาสตร์

เห็นชอบการจัดการเกี่ยวกับการตั้งคณะอนุกรรมการ ศูนย์ ชั้น 1 อาคาร 1 พระนคร เพื่อรายงานผลการจัดการเกี่ยวกับการตั้งคณะอนุกรรมการ ศูนย์ ชั้น 1 อาคาร 1 พระนคร

ขอให้โปรดให้ข้อมูลเพิ่มเติมเกี่ยวกับการตั้งคณะอนุกรรมการ ศูนย์ ชั้น 1 อาคาร 1 พระนคร เพื่อรายงานผลการจัดการเกี่ยวกับการตั้งคณะอนุกรรมการ ศูนย์ ชั้น 1 อาคาร 1 พระนคร

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ข้อเสนอความเห็นของผู้วิชา

(นายชญวัฒน์ นพมาชี)

ผู้รับผิดชอบการรักษา ปฏิบัติราชการแผน

ผู้อำนวยการ องค์การมหาชนที่มา

นางสาวภูริทิพย์

โทร. 66666
APPENDIX D-2

Oklahoma State University

DEPARTMENT OF EDUCATIONAL ADMINISTRATION
AND HIGHER EDUCATION
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I III

The Relationship of Academic Training and Educational Experience to the Administrative Effectiveness of Secondary School Principals as Perceived by Teachers in Educational Region I, Thailand.

The objective of the study is to investigate the relationship between academic training and educational experience and the administrative effectiveness of secondary school principals as perceived by their teachers in Educational Region I, Thailand. The study is conducted through a survey method where a sample of 150 teachers from 36 schools in the region is selected. The data collected is analyzed using descriptive statistics and inferential statistics to determine the relationship between academic training, educational experience, and administrative effectiveness of the principals.

The findings indicate that academic training and educational experience positively influence the administrative effectiveness of secondary school principals. Teachers who have received more academic training and have had more educational experience tend to perceive their principals as more effective administrators. The study recommends that teacher training programs include more emphasis on administrative skills and that schools provide opportunities for teachers to gain more educational experience.


d1um1

The administration of schools is a complex task that requires a combination of academic training and educational experience. This study highlights the importance of these factors in the success of secondary school principals.

The research has important implications for educational administrators, policymakers, and teacher educators. It suggests that efforts should be made to improve teacher training programs and provide opportunities for teachers to gain more educational experience.

This study is limited to the region in Thailand and may not generalize well to other regions. Future research should consider expanding the sample size and include more regions.

In conclusion, the study finds that academic training and educational experience are important factors in the administrative effectiveness of secondary school principals. The findings have implications for teacher training programs and school administration.

The study also highlights the need for further research to explore the relationship between administrative effectiveness and other factors such as school resources and school culture.

Despite the limitations of the study, the findings provide valuable insights into the factors that influence the administrative effectiveness of secondary school principals. The results can be used to inform policies and practices that can improve the quality of school leadership.

The study contributes to the knowledge base in education and policy by providing empirical evidence of the role of academic training and educational experience in the success of secondary school principals.

The findings of the study can be used by educational administrators and policymakers to make informed decisions about teacher training and school administration. The results can also be used by teacher educators to improve their programs and prepare teachers for effective school leadership.
ช่องพระคุณที่ได้รับมาจะเห็นว่าจะไม่ควรมีช่องเหลืออยู่จึงเป็นอย่างสูง ขออ่านจุ

ช่องพระพิรุณความและชื่นกิติศิลป์ จงยกมีโทษที่รักและจะยินยอมรับเหมามณความสุข
ความเจริญ และความสมหวังใส่ใจที่ปราบถึงพระยุทธประการ.

ขอแสดงความนับถือ

(นายประจุย รอตประเสริฐ)

พล. กรมนายกลางความค่าของทานให้แก่องอาจรับใหญ่ หรือ ยินดีว่าการ
โครงเรือนของทาน ก่อน วันที่

ขอคุณ
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แบบสอบถามคุณภาพที่ 2 ข้อ 36 ที่ระบุ  กฎหมายเกี่ยวกับสุขภาพของคนงาน (2) ต้องมีการ หัวหน้าทุกชั้นบริการ ควบคุมดูแล ให้การบริการที่มีคุณภาพ มีประสิทธิภาพ และเป็นธรรม  ที่เป็นการสนับสนุนและช่วยเหลือพนักงาน  ของข้อความดังกล่าวควรจะสุขภาพเป็นอย่างดี  การใช้สุขภาพ มีประสิทธิภาพ และเป็นธรรม  ที่จะมีการพัฒนาการปฏิบัติงาน  ข้อความดังกล่าวที่ถูกต้องและเหมาะสม  วันที่ 16 มีนาคม 2564
APPENDIX E

A FOLLOW-UP LETTER AND A LETTER
OF THANKS FROM THE RESEARCHER
TO THE PARTICIPANTS

APPENDIX E-1: Follow-Up Letter to the Principals.

APPENDIX E-2: Letter of Thanks to the Participating Principals and Teachers.
APPENDIX E-1

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APPENDIX E-2

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15 ทุกข์ทั้งสิ้น 2519

เรียน อาจารย์ฝ่าย/ผู้อำนวยการโรงเรียน .........................

ญี่ปุ่นทำเป็นการท้าวความเป็นของระบบ ให้รับคำตอบแบบสอบถาม
บาง ๆ คืนเรียบร้อยแล้ว คำตอบและความรู้สึกรวมถึงรายละเอียดของทานครั้งนี้
นอกจากจะช่วยให้ระบบสำเร็จการเก็บข้อมูล ยังเป็นที่หวังว่าจะทำอย่างประชุม
ให้แต่ละการพิจารณาการศึกษาของชาติในอนาคต

ยินดี ขอหน่วยให้รับสมัครอาจารย์บุคคลแบบสอบถามของระบบว่า
กระบวนของสอบคัดกรองในความรู้ความสามารถรายละเอียดของทุกทานอย่างสูง.

ขอแสดงความนับถือ

(นายประจุ รองประเสริฐ)
VITA

Prachoom Rodprasert

Candidate for the Degree of
Doctor of Education

Thesis: THE RELATIONSHIP OF ACADEMIC TRAINING AND EDUCATIONAL EXPERIENCE TO THE ADMINISTRATIVE EFFECTIVENESS OF SECONDARY SCHOOL PRINCIPALS AS PERCEIVED BY TEACHERS IN EDUCATIONAL REGION I, THAILAND

Major Field: Educational Administration

Biographical:

Personal Data: Born in Ban-Na, Nakhon-Nayok, Thailand, July 9, 1946, the son of Mark and Chom Rodprasert.

Education: Attended elementary and junior secondary school at Ritthiya Wannalai School, Bangkhen, Bangkok, Thailand, 1955-1963; graduated from Saravithaya Senior Secondary School, Bangkhen, Bangkok, Thailand, in 1965; received Bachelor of Education Degree with a major in mathematics from the College of Education at Bangsaen, Chonburi, Thailand, in 1970; received Master of Education with a major in educational administration from Louisiana State University, Baton Rouge, Louisiana, in 1972; completed requirements for the Doctor of Education at Oklahoma State University in December, 1976.