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Relationship between perceived adaptation to the new school setting and academic standing in the new school among the Indochinese refugee students in Iowa junior and senior high schools

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**Relationship between perceived adaptation to the new school setting
and academic standing in the new school among the Indochinese
refugee students in Iowa junior and senior high schools**

by

Liem Thanh Nguyen

**A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of
The Requirements for the Degree of
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CHAPTER I. INTRODUCTION

Background for Study

Indochinese refugees in the United States

On April 25, 1975, by Memorandum to the Secretary of State, President Gerald R. Ford set forth the beginning of assistance for the relocation of South Vietnamese from South Vietnam. By Executive Order 11860, May 19, 1975, the framework and spirit of the relocation was placed in the historical and constitutional mold of the United States as follows:

"Since the arrival of the first settlers on our eastern seaboard nearly 400 years ago, America has been a refuge for victims of persecution, intolerance and privations from around the world. Tide after tide of immigrants had settled here to our well-being as a nation. . . .

The arrival of thousands of refugees, mostly children, will require many adjustments on their part and considerable assistance on ours. But it is in our best interest as well as theirs to make this transition as gracious and efficient as humanly possible" (Presidential Documents Title 3, p. 22121).

As of December 1975, the more than 131,000 Indochinese refugees have been moved from resettlement camps to permanent homes in the United States. The distribution of these refugees ranged from less than 100 in several states such as Alaska, Delaware, New Hampshire, Vermont, Wyoming, to more than 10,000 in some others such as California and Texas (National Indochinese Clearinghouse, 1975). Iowa received more than 2,000 Indochinese refugees. Immediately following these relocations, American schools constituted a part of the new environment to which an estimated 50,000 school-age refugees had to adjust.

Indochinese refugees in Iowa

The two largest groups of the Indochinese refugees in Iowa are the Thaidam and the Vietnamese (approximately 1,200 Thaidam and a little more than 1,000 Vietnamese). The Hmong totaling about 100, and the Cambodian not exceeding 20, constitute but a very small part of the Indochinese refugees in this state. Thus, the two ethnic groups of interest in this study are the Thaidam and the Vietnamese.

Before 1954 the Thaidam (or Black Thai) lived in North Vietnam occupying the area in the border of Vietnam close to China in the north and to Laos in the west. They have their own language, customs, religions that are very similar to the Lao. Under the French domination they constituted a minority ethnic group of Vietnam, studied in the Vietnamese schools, spoke Vietnamese and French besides their own language. After the victory of the Vietnamese communists at Dien Bien Phu in 1954, the majority of the Thaidam took refuge in Laos and became Lao citizens sometime later. They were easily integrated to the Lao society because of the close ties between these two peoples in terms of history, language, and customs (Saythongphet, 1976). The Thaidam adolescents were born in Laos, attended Lao schools, and had been socialized into Lao society before they came to the United States in 1975 after the Communists took over in Laos. All the Thaidam refugees were relocated in Iowa.

The Vietnamese refugees in the United States came from Vietnam, the largest and the most populated (about 45 million) country in the Indochinese peninsula, as a consequence of the complete victory of the Communists in Indochina in 1975. All the Vietnamese speak the same language, which is the Vietnamese, have their own customs and values which are a little

similar to those of the Chinese. Thus, in terms of ethnic group and cultural background, the Vietnamese are different from the Thaidam. There is one thing in common, however, between these two ethnic groups: their schools had the same educational patterns inherited from the French as a consequence of the French domination over Indochina for more than 80 years. Curricula, methods of teaching and learning, examinations, diploma requirements, and school organization, all were strongly influenced by the French. Thus, in terms of educational background, these two ethnic groups do not differ very much.

Problems of adaptation of the refugees to the host society

The movement of an individual or a group from one society to another is generally referred to as migration. This includes both the voluntary immigrant and the refugee immigrant. The latter is differentiated from the former in that "he has left his former territory because of political events, not because of economic conditions or because of the economic attraction of another territory," and that "in general, the refugee cannot return without danger to life or liberty, as a direct consequence of the political conditions existing there" (Sir John Hope Simpson, 1939, pp. 3-4). In the same light Kent described the essential features of the refugees in his study on "The Refugee Intellectual" as follows:

"The refugee is always a person who has left his homeland under strong propelling pressure. That which prompts his migration is not the attraction of a new land but expulsion or flight from his native land to preserve life or liberty. This propelling force is also of a political nature in that it stems from an organized group. Furthermore, the refugee is denied the support and protection of his homeland that is accorded to the other nationals abroad" (1953, p. 7).

Unlike the immigrant who has prepared everything for his migration, the refugee left his homeland unprepared. Under strong propelling pressure he has left his country losing fortune, status, and even members of his family. Thus, as said Rogg, the refugee enters the host society "defeated" and "depressed" (1974, p. 2). In a short period of time, he is uprooted from his homeland and his native way of life, separated from his friends and relatives, to resettle in an unfamiliar environment. Once resettled, the refugee must learn the host language, manners and customs, and other day-to-day norms to function with minimum effectiveness in the new social setting. This process of learning to adapt to the new environment is often called acculturation. For most social scientists, acculturation begins upon arrival because it implies the ability and skills necessary for surviving in the new environment. But acculturation constitutes only one aspect of the adaptation process. Another important aspect of this process is the social-personal adjustment which, according to Eisenstadt (1954), is concerned with the individual refugee, his satisfaction with the new life, his ability to cope with the various problems arising out of his new situation. For Richardson (1967), this aspect concerns what happens to the refugee during the initial period of readjustment. If successful it results in the refugee experiencing a state of satisfaction with his new life which can accelerate the process of adaptation to the host society. According to Eisenstadt the transplantation from one culture to another entails many frustrations and difficulties for the refugee, and the success of the whole process of this transplantation is mainly determined by the degree of adaptation of the refugee to the new situation.

Adaptation of the refugee adolescents

From the perspective of most social scientists, the process of adaptation of the refugees to the new social setting seems to be more complicated and takes more time for the older people than for the young children. This is because, for the adult refugee, it is assumed that the socialization process to the native culture is almost completed while for the young child it is only beginning. The case of the adolescent is somehow in between those of the adult and of the young child. The refugee adolescents had certain background and academic status in their native country. Their background includes the knowledge of their culture and their academic status was their academic standing in their native school. Since they are in the school-age group, with most of their activities in the school, once in the host society the difficulties for the adolescents are primarily those related to their adaptation to the new academic setting.

When the Indochinese refugee students first entered the American schools in 1975, most of them did not understand and speak English. They were concerned with how to communicate with other people in the new school since most of the Americans spoke another language. How to understand what the teachers said? How to know the rules and conform to regulations of the school that are unfamiliar to them? How to respond appropriately in an unfamiliar atmosphere? All their knowledge acquired from their native country seems to be nullified. This state often results in a feeling of frustration and anxiety. It must take a certain time for them to be familiarized with the new academic setting, to overcome the difficulties, to be free from anxiety, and to function as effectively as their American peers. It is only when they have almost completed the adaptation process that they

can have the feeling of being at home in the new social setting and be able to function as effectively as they did in their native country. This process of adaptation might be accelerated or retarded depending partly on the state of satisfaction with the new life and new academic setting experienced by the refugee students during the period of readjustment. And this satisfaction with the new life and new school setting depends in turn partly on the atmosphere of the school and especially the attitudes people in the host school hold toward the newcomers. As long as the adaptation process is not completed, the refugee students remain in the transition stage in which they are experiencing frustrations and difficulties that may set limits on their ability to learn and on their academic performance.

Purpose of the Study

Since most research in the area of immigration assimilation has focused on the adults and the long process of absorption of the immigrants within the host society and little has been done on refugee adolescent immigrants, this study focuses on the latter, especially on their adaptation to the new school environment from the social psychological perspective. The adolescents in this study are the Indochinese refugee students whose ages are generally from 13 to 19 years old and who are enrolled in Iowa junior and senior high schools. The adaptation studied is mainly the adaptation of these students to the new academic setting, which is the American school here in Iowa.

The purpose of the study is twofold. First, it is designed to measure the perceived adaptation of the refugee students to the host school and to determine the relationship between this perceived adaptation and the

academic standing¹ of these students in the new school. Second, it is intended to identify and explore the different factors that contribute significantly to the process of adaptation of these students as well as to their academic standing in the new school.

Statement of Problem

As we stated earlier, the adaptation process involves both social-personal adjustment and acculturation in the school context. The former refers to how the refugee students perceive that they are accepted and liked by others in the American school and have a feeling of satisfaction with their new life and new academic setting. The latter refers to how the refugee students perceive their learning and understanding the host language, the lessons in the school, the American textbooks, and the different school subjects. For a particular refugee student, a successful adaptation may be reflected in his perception that he is well-adjusted and well-acculturated in the new school setting. Does this perceived adaptation relate to his academic performance in the new school? In the light of the question--do those who perceive themselves as well-adapted to the new school setting perform better in different school subjects than those who do not?--the problem here is to determine the relationship between the perceived adaptation to the new school setting and the academic standing among the refugee students.

According to Bhatnagar (1970), adaptation to the school setting is culture-linked. A refugee student may perceive that he was more

¹The definition of academic standing used in this study is given on page 16.

well-adapted to his homeland school than he is now to the American school. When the adaptation to the new school is perceived as not very successful for a particular refugee student, he may experience difficulties that set limits on his ability to learn, especially with regard to the academic subjects which require much knowledge of English and American culture backgrounds such as English and social studies. As a consequence, the refugee student may like the academic subjects that involve less English, using universal symbols, that are not culture-bound such as mathematics, and may perform better in these subjects than in the others. The questions are: How well do the refugee students perform in different academic subjects in the American school? What subject do they like the most? And is there any relationship between the level of performance in a particular academic subject and the student's perception of adaptation to the new academic setting? Do those who perform better in a culture-bound subject such as social studies perceive themselves as more well-adapted to the new school than those who do not? Thus, the problem here is to find: (1) if there is significant difference between the level of performance in a nonculture-bound subject (such as mathematics) and the level of performance in a culture-bound subject (such as social studies) of the refugee students? and (2) what are the relationships between the perceived adaptation to the new school setting and the level of performance in a particular school subject among these students?

Once the level of perceived adaptation of the refugee students and their academic standing in the new school have been assessed, our next question is: what are the different social psychological factors that significantly contribute to this perception as well as to this academic

standing? Thus, the last problem here is to identify and explore the different contributive factors to the perceived adaptation of the refugee students to the new school setting and to their academic standing in the new school.

Hypotheses

Following the works of Eisenstadt, Richardson, and Bhatnagar, we formulated the following ideas which are used as theoretical foundations for establishing the hypotheses in this study. These basic ideas are:

All the Indochinese refugee students in Iowa junior and senior high schools at the present time still are in the transition stage which is called the stage of adaptation to the new school setting. The adaptation to the school process has two components: (1) social-personal adjustment and (2) acculturation in the school context. Social-personal adjustment refers to the perception of being socially accepted and liked by others in the school and the satisfaction with student's life and academic setting. Acculturation in the school context refers to the perceived degree of understanding the language, teachers, lessons, and textbooks in the school and the perceived ability of learning different school subjects such as language, mathematics, science, social studies, and humanities (art, music, etc.). There is a two-way influence between these two components. Social-personal adjustment, if successful, may accelerate the process of acculturation which, in turn, may facilitate the social-personal adjustment process. These two components constitute the two main indices of adaptation to the school setting.

The adaptation to the school setting is culture-linked. A refugee student may have been well-adapted to his native school but not well-adapted to the American school. For a particular refugee student, when the adaptation to the new school setting is successful, he is experiencing the feeling of being at home, is free from the difficulties and anxiety of the transition stage, is able to function effectively, and performs in different school subjects as well as he did in his native school. But if the adaptation to the new academic setting is not successful, the refugee student still is experiencing the difficulties and anxiety of the transition stage that set limits on his ability to learn and his performance in different school subjects, especially in the subjects that require much knowledge of English and American culture backgrounds such as social studies. Since the adaptation process to the new academic setting of the Indochinese refugee students is assumed to be not completed yet, we expect to see most of them like and perform better in the nonculture-linked subjects (such as mathematics) than in the culture-linked subjects (such as social studies).

From these basic ideas we can formulate the following hypotheses regarding the relationship between perceived adaptation and academic standing of the Indochinese refugee students in Iowa junior and senior high schools:

Hypothesis 1: Among the Indochinese refugee students in Iowa junior and senior high schools there is:

- (a) relationship between the perception of being liked by others in the school setting and the satisfaction with life and academic setting.

- (b) relationship between the perceived understanding language, teachers, lessons, textbooks, and the perceived ability to learn different school subjects.
- (c) relationships among social-personal adjustment, acculturation in the school context and academic standing in the American school as well as in the native school.
- (d) relationship between perceived adaptation to the academic setting and academic standing in the school.

Hypothesis 2: There is relationship between perceived adaptation to the new academic setting and academic standing in a culture-linked subject such as social studies among the Indochinese refugee students in Iowa junior and senior high schools.

Hypothesis 3: There is relationship between the degree of liking a particular school subject and the academic standing in that subject among the Indochinese refugee students in Iowa junior and senior high schools.

Hypothesis 4: The academic standing mean score of the Indochinese refugee students in a nonculture-linked subject such as mathematics is significantly higher than that in a culture-linked subject such as social studies.

Hypothesis 5: The academic standing mean score of the Indochinese refugee students in the native school is significantly higher than that in the host school.

Hypothesis 6: The perceived adaptation mean score of the Indochinese refugee students in the native school is significantly higher than that in the host school.

Hypothesis 7: In the American school the Indochinese refugee students like a nonculture-linked subject such as mathematics significantly more than a culture-linked subject such as social studies.

Delimitations

The title of the study has already shown certain limitations of this research. First, although it is said that the study focuses on the Indochinese refugee adolescents in the United States and their adaptation to the new school setting, it is in fact restricted to the Thaidam and the Vietnamese in Iowa only. The reason is that, given time, personnel, and facilities, the research cannot extend to these refugees in other states. Moreover, as we said earlier, all the Thaidam have been relocated in Iowa and not in any other state.

Second, the refugee adolescents here are restricted to those who are currently enrolled in Iowa secondary schools, that is, in junior and senior high schools. Those who are enrolled in colleges and universities, as well as those who do not attend schools, are not involved in the study. The reason for doing this is to have a similar structural effect of the new school setting which is the Iowa secondary school.

Third, with regard to the measuring instruments and strategies of conducting research, there are also some restrictions. Intelligence, aptitude, and achievement tests cannot be used. All these tests are culture-linked. Moreover, most of the Indochinese refugee students do not want to take any test besides those given by the teachers in the school. A self-report inventory or questionnaire is preferred to get the student's response. Furthermore, the inventory or questionnaire should be short, simple, and

easily understood. The questionnaire cannot be administered in the school, for if it is administered in the school it will be seen as a formal test or a formal questionnaire made by school administrators to investigate the students despite the explanations. In consequence, the student's attitudes and feelings will be distorted because of fear, anxiety, doubt, social desirability, or reaction involved.

All these restrictions set limits somehow on this study in terms of generalization of the results.

Definitions

Adaptation

In daily language adaptation refers to the process of becoming adapted to an environmental setting, or the process of fitting into an environmental setting. When there are changes in the environment, there will be changes in the behavior of the individual to fit to the new situation. According to Berry (1976), these behavioral changes can take several different forms from adjustment, reaction, to withdrawal.

"In the case of adjustment, behavioral changes are in the direction which reduces the conflict (that is, increases the congruence) between the environment and the behavior by bringing the behavior into harmony with the environment. In general, this variety is the one most often intended by the term adaptation and may indeed be the most common form of adaptation" (Berry, 1976, p. 14).

It is this type of adjustive adaptation that we refer to in this study. Thus, we can define adaptation as the process by which the individual brings his behavior into harmony with the social setting. Adaptation and adjustment are often used as interchangeable terms. Indeed what we here call adaptation Bhatnagar (1970) called adjustment which he operationally

defined as follows: "A person may be called well-adjusted if he is able to deal effectively with his environment through having an objective self-concept, is socially accepted, is personally satisfied, and is free from anxiety" (p. 9). Like Bhatnagar we operationally define adaptation to the school setting as follows: A well-adapted person to the school setting is a person who: (a) has a positive attitude toward the school and is satisfied with life and school, (b) perceives himself as being accepted and liked by other people in the school, (c) understands the language, teachers, lessons, and textbooks used in the school, and (d) perceives himself as having the ability to learn different school subjects such as language, mathematics, science, social studies, humanities, etc. The first two components constitute what we called social-personal adjustment, and the other two constitute what we called acculturation in the school context.

Adjustment

The concept of adjustment stems from the term adaptation usually used in biology. Psychologists have borrowed the concept of adaptation from biology and renamed it adjustment (Lazarus, 1965, p. 17). But psychologists are more concerned with psychological adaptation than physical adaptation. Thus, Lazarus defined adjustment as psychological processes by which "the individual manages or copes with various demands or pressures" (p. 18). Goodstein and Lanyon (1975), approaching the problem of human adjustment from the social learning perspective, regarded "an individual's adjustive capacity as the ability to meet and cope with stresses and problems with a minimum of disruption to the ongoing process of life" (p. 15). In the case of the immigrants, personal adjustment refers to the ability to

cope with the various problems arising out of the new situation and the personal satisfaction resulting from the success of this coping capacity (Eisenstadt, 1954). From the perceptual point of view (Combs and Snygg, 1959), the well-adjusted people are those "who feel generally adequate of coping with life," "who see themselves in essentially positive ways and as a consequence are free and open to their experience, able to accept both themselves and others . . ." (p. 239). The definition we give to social-personal adjustment in our study is close to that of Combs and Snygg; it refers to the individual's perception of being accepted or liked by others and the satisfaction with life and environmental setting. Thus, applied to the Indochinese refugee students, and operationally defined, the well-adjusted students are those who see themselves as accepted by others in the school setting and who, in turn, like others and have positive attitude toward the academic setting.

Acculturation

Acculturation, or cultural assimilation, is a process by which an immigrant or refugee changes his cultural patterns to adopt those of the host society. It involves both the desocialization (from the sending culture) and resocialization (to the host culture) processes. Acculturation in the school context in our study refers to the process by which the students acquire the behavioral patterns that are appropriate to the academic setting. These behavioral patterns include the capacity of understanding the language, teachers, lessons, and textbooks used in the school and the ability to learn different school subjects such as English, mathematics, science, social studies, humanities, etc. Thus, operationally defined,

acculturation in the school context refers to the student's perceived capacity of understanding language, teachers, lessons, textbooks, and his self-perception of ability to learn different school subjects.

Academic standing

Academic standing is the status, or the position, the students holds in the school compared with his classmates in terms of academic performance. This is mostly based on the achievement grade the student has earned in different school subjects in recent school examinations. Thus, academic standing is operationally defined as the average achievement grade the student has earned in different school subjects such as language, mathematics, science, social studies, and humanities, including the last examinations in the school and the basis of comparison (actual or implicit) with other students.

CHAPTER II. LITERATURE REVIEW

This study of the adaptation of the Indochinese refugee students to the American schools relates to two areas of research: (1) immigration-assimilation and (2) education of the immigrant children. This chapter presents the review of literature related to these two areas.

Immigration-Assimilation

Since World War I much has been written on immigration and assimilation in the United States as well as in other immigrant receiving countries such as Canada, Australia, and Israel. The early writings on this subject were in the United States and seemed to be more polemical and emotional than empirical and scientific (Price, 1969). Most of these writings reflect what social scientists called "Anglo conformist" spirit. By this it is meant that the immigrants, once resettled in the United States, were expected to cast away their language, behavior patterns, and life style in favor of the Anglo-Saxon core culture. After several generations in the United States, the immigrants are expected to be completely Americanized and to disappear as a cultural group in the large society. The emergence of this doctrine can be explained in the context of the immigration situation in the United States during the period from 1860 to 1940. Compared with the immigrants of the previous period, not only were the immigrants of that period greater in number but also different in their origin. The former came from Western Europe while the latter came from Eastern Europe. As a result of these waves of immigration, the social structure of the United States tended to change (Newman, 1973). The dominant group reacted to this fact by expecting that the incoming immigrants should conform to

the core culture norms and values. The first influential theorist of this doctrine is Robert E. Park. His theory of race relations, formulated in the early 1920's and partly modified in the 1930's, reflects the Anglo-conformist doctrine, or assimilationism, above mentioned. According to Park, race relations proceed in a cycle of four sequential stages:

(1) contact, (2) competition, conflict, (3) accommodation, and (4) assimilation. The first stage occurs when two ethnic groups meet as a consequence of circumstances such as migration and conquest and are obliged to interact each other. This meeting leads to competition for valuable resources. Conflict arises from competition and ends in a state of accommodation, a *modus vivendi*, which most of the time results in an inferior status on the part of the minority group. Accommodation finally leads to assimilation, a progressive intermixture of the two groups until the minority group disappears in the dominant society. This cycle of events tends to repeat everywhere; it is progressive and irreversible, dictated by irrevocable laws.

Park's theory has been very influential and was used by many social scientists during the 1930's and 1940's to explain the assimilation process of many immigrant groups in the United States, especially those who came from Europe during the 18th and 19th centuries. Duncan's study (1933) on immigration and assimilation seems to support Park's theory. Warner and Srole (1945), studying "the social systems of American ethnic groups" found that many ethnic groups (Irish, French Canadian, Jews, Italian, Armenian, Greek, Pole, Russian) who entered the United States in the late 19th century, through several generations, have disappeared in the larger American society. Others are on their way to assimilation. The situation of the

refugees does not differ very much from that of the immigrants. From the assimilationist perspective, once resettled the refugees are expected to go through the different stages of race relations cycle as did the immigrants until they are completely assimilated in the host society. The works of Fields (1938), Saenger (1941), Davie (1947), and Kent (1953) on the refugee immigrants in the United States seem to support this expectation.

However, Louis Wirth (1928) in his book, "The Ghetto," has shown that many ethnic groups, after a period of adaptation to the host society (of the first and second generations), tend to return to the culture of their ancestors (with the third and later generations). Even in ethnic groups that seem to be well-assimilated, there still are many individuals who tend to withdraw from the Anglo-Saxon core culture to live isolated in their own communities like the ghetto of the Jews. This relates to Hansen's law which states that "what the son wishes to forget, the grandson wishes to remember" (1937, p. 15), that is, the second generation immigrant tends to be assimilated, but the third generation immigrant tends to return to the culture of their ancestors. Moreover, if assimilation theory can be applied to a small number of white immigrant groups, it cannot apply to the nonwhite ones. The Chinatowns, the ghettos, the black belts, and other ethnic communities still exist regardless of the time these ethnic groups have been in the United States. Lastly, as Price remarked, Park's cycle does not fit all the facts the theory is intended to explain. Race relations do not necessarily go through the four sequential stages postulated by Park.

These divergences of views gave way to the pluralism, or cultural pluralism, which became the dominant sociological theory in the field of

immigration-integration during the last two decades in the United States. One of the most influential among the pluralists is Milton Gordon. In his book, "Assimilation in American life" (1964), Gordon proposed another view of the whole process of assimilation. For him assimilation is not a uni-dimensional process but a multidimensional one. There are seven subprocesses to be considered in the phenomenon of assimilation, namely (1) cultural assimilation or acculturation, (2) structural assimilation, (3) marital assimilation or amalgamation, (4) identificational assimilation, (5) attitude receptional assimilation, (6) behavior receptional assimilation, and (7) civic assimilation. The most important among these subprocesses are cultural assimilation and structural assimilation. The first refers to the change of cultural patterns to those of the host society on the part of the immigrants. "Cultural assimilation, or acculturation, is likely to be the first of the types of assimilation to occur when a minority group arrives on the scene" and "may take place even when none of the other types of assimilation occurs simultaneously or later, and this condition of 'acculturation only' may continue indefinitely" (Gordon, 1964, p. 77). Structural assimilation refers to the large scale entrance of the immigrants into the host society's primary groups such as cliques, clubs, etc. Structural assimilation is very important because "once structural assimilation has occurred, either simultaneously with or subsequent to acculturation, all other types of assimilation will naturally follow" (Gordon, 1964, p. 81). According to Gordon, the American Jews, for example, are substantially assimilated at the cultural and civic levels and very little at the structural level. The whole assimilation process is said of as complete when all the subprocesses are completed. Based on these criteria, and

applied to nonwhite minority groups, there is no complete assimilation so far either in the United States or in other immigrant-receiving countries. Thus, instead of assimilation, a state of cultural pluralism is seen as the resultant of race relations.

All these theories, however, are from the sociological perspective and focus on the whole process of assimilation at the macro level. Theorists from this perspective paid little attention to other areas such as membership groups, reference group, socialization, social-personal adjustment, etc., on the part of the immigrant. Another approach to the problem of the immigrants is from the social psychological perspective and focuses more on the individual psychological changes during the process of migration. The first influential writer from this perspective is Eisenstadt. According to this author, in the movement of migration there are three stages to be considered: (1) the motivation to migrate, (2) the migration process, and (3) the absorption of the immigrants within the host society. The first stage is the stage of decision making which occurs in the home country before the migration. The second stage, the migration process, involves drastic changes on the part of the immigrants, involving the re-forming of the immigrant's status image and set of values. Through this stage the de-socialization and re-socialization processes are accomplished. The third stage, the absorption process, refers to the fact that, over time, the immigrants are dispersed within the main institutions of the host society. It is only when all these three stages have been accomplished that the process of assimilation can be seen as complete.

There are three indices that indicate complete assimilation:

(1) acculturation, (2) personal adjustment, and (3) institutional

dispersion. Acculturation refers to the fact that the immigrants learn and internalize the language, customs, and norms of the host society and behave in accordance with them. Personal adjustment refers to the way in which the new country affects the immigrant's personality, his satisfaction, his ability to cope with the various problems arising out of his new situation. Institutional dispersion is concerned with the complete dispersion of the immigrants within the main institutional spheres of the absorbing country. The third is the best index of a complete assimilation. The first two indices relate to the second stage which is the adaptation to the new environment.

After Eisenstadt, a psychologist, Ronald Taft (1963), studying the assimilation process of the Hungarian, Dutch and Baltic settlers in Western Australia, found two important aspects of integration of these immigrants to the host society. The first, called "primary integration," is characterized by the following feelings and attitudes on the part of the immigrants: (1) satisfaction with the new society and the desire to stay, (2) identification of self as a member of the new society, (3) perception of the hosts (in the society) as unprejudiced, and (4) desire to become naturalized. The second, called "secondary integration," is characterized by the following: (1) use the host language, (2) mix socially with the hosts, and (3) adopt various host behavior norms.

More recently, Alan Richardson (1967) also focused on the psychological changes in the individual immigrant during the period of adaptation to the new society and found the following sequence in the process of cultural assimilation: satisfaction--identification--acculturation. He described

and explained these psychological changes on the part of the immigrant as follows:

"To describe something of what goes on psychologically, when the immigrant arrives and stays in a new community, attention will be concentrated upon three major aspects of change and their determinants. The first of these aspects concerns what happens to him during the initial period of readjustment and resettlement. When successful this period concludes with the immigrant experiencing a general state of satisfaction with his new life. Given that he feels more satisfied than dissatisfied the foundation exists for the growth of a new sense of attachment or belonging to his adopted community. Where this new sense of attachment develops, if it does, the immigrant may be described as having reached the identification level of assimilation. To be identified with one's host group also implies a favorite set towards it, which may result in the more rapid adoption of a wider variety of its attitudes, beliefs and behaviours than might otherwise occur. When major changes in attitudes, beliefs and behaviours have actually occurred then the new group member may be described as having reached the acculturation level of assimilation" (pp. 4-5).

Richardson's theory deals only with the acculturation process and focuses mainly on the individual psychological changes in the period of adaptation to the new social setting regardless of the size, origin, sex, age . . . of the immigrant group. Richardson generalizes his theory by saying that "many aspects of the assimilation process described in this (his) paper, apply to persons who move from secondary school to a university, from a civilian community to a military community, from an old residential area to a new satellite town or from prison life to ordinary life" (p. 29).

All the processes of assimilation, or absorption, or integration, require a certain degree of adaptation on the part of the immigrant to the new social setting, and this process of adaptation can be accelerated or retarded by the social psychological factors on the part of the individual immigrant. Kent said:

"Economic adjustment is pivotal to the entire process of assimilation. . . . This is not to say that satisfaction with one's economic status will automatically bring about an acceptance of American values; but rather that dissatisfaction may produce a negativism that is readily transferred to many other phases of the environment" (1953, p. 72).

This is because, as stated Dr. Donald Young, of "the need for the maintenance of a level of living sufficiently high to permit personal and social integration" (cited by Kent, 1953, p. 73).

Studying the Indochinese refugees in the United States (1977), Garkovich clustered the parameters of adaptation into three broad categories as follows:

"1) The pre-existing attitudes and characteristics of the immigrants constitute a set of social and personal attributes influencing the manner in which the individual or group cope with life events.

2) The structure of the new social system and its symbolic framework will affect where the immigrant enters the social system and how institutions and individuals respond to the immigrant.

3) The definition of the situation. The way an individual responds to a situation depends on how he defines the objects in the field of action. . . . The members of the host society also have a series of conceptual images to define the immigrants and the members of the host society will influence the process of assimilation" (p. 6).

With reference to these clusters of factors influencing the process of adaptation-assimilation, we can summarize previous research findings on this area as follows:

1. Pre-existing attitudes and characteristics of the immigrants:

- (a) Age. Assimilation "varies inversely with age" (Davie, 1947, p. 143). Kent also said that "the integration of the three age groups--young adults (arbitrarily fixed at 20 to 40 at time of arrival), middle-aged (41 to 60), and the aged (above

61)--as measured by the several criteria used in this study varied inversely with the increase of age" (1953, p. 210).

With regard to generation, it is found that the first generation preserves the old culture, the second generation tends to be assimilated, and the third generation tends to return to the old culture (Thomas and Znaniecki, 1918; Wirth, 1928; Hansen, 1937). Brown stated:

"The immigrant of the first generation is struggling to maintain his old life organization and to preserve the culture he acquired, over a period of half his life, against great odds, the greatest of which is the effort on the part of his children to become American and thus get out of the culture that is sacred to their parents" (1969, p. 253).

- (b) Sex. Some social scientists believe that women, in general, adapt to the new situation better than do men. Davie (1947) found that women adjusted more readily to American life than did men. According to Kent:

"Women tended to adopt 'the American look' in dress more rapidly than did men . . .; they acquired greater language facility and the outward manner of American society sooner . . .; men seemed to take more readily to the more abstract phases of American culture" (p. 211).

- (c) Marital status. "The married appeared, on the whole, to have met the greater success in coping with the adjustment in the New World" (Kent, 1953, p. 212).
- (d) Education. The well-educated immigrants and refugees seem to be well-aculturated in a short period of time (Saenger, 1941; Kent, 1953).

- (e) Race. White immigrants are assimilated much more easier than nonwhite ones (Park, 1950; Gordon, 1964).
- (f) Religion. Similarities of religion facilitate the process of assimilation (Warner and Srole, 1945; Gordon, 1964).
- (g) Size of the group. The larger the size of the ethnic group, the lesser the assimilation (Warner and Srole, 1945; Gordon, 1964).
- (h) Transferable skills. Transferable skills are determining factors in economic adjustment (Kent, 1953; Garkovich, 1977).

2. The new society.

- (a) Social organization. Similarities of social organization facilitate assimilation (Park, 1950; Brown, 1976).
- (b) Place of residence. The process of assimilation will be slowed down or retarded if a minority group is spatially isolated and segregated in a rural area (Gordon, 1964).

Residential stages correlate with ethnic community organization and social mobility (Warner and Srole, 1945; Kent, 1953).

- (c) Time spent in the new society. Many social scientists believe that there is positive relationship between time spent in the new society and the degree of adaptation to that society. But Bhatnagar (1970) contended that adjustment to the new environmental setting is not a matter of time.
- (d) Ethnic community. For the assimilationists ethnic community retards the process of assimilation. But according to other social scientists, ethnic community facilitates the process of

integration of the newcomers to the host society. Fitzpatrick (1966) wrote:

"The immigrant community is the beachhead into the new society. It provides for the immigrant a base of security, peace, and psycho-social satisfaction while he learns to adjust to the new and strange world into which he has come" (p. 15).

- (e) Social mobility. Immigrants and refugees entered the host society at the bottom of the social ladder but gradually climb upward through several generations. Social mobility seems to correlate positively with time spent in the host society, and both relate to assimilation process (Warner and Srole, 1945; Kent, 1953; Saenger, 1941).
 - (f) Attitude of the hosts. Prejudice and discrimination retard the assimilation process (Kent, 1953; Gordon, 1964; Brown, 1976; Taft, 1963; Richardson, 1967).
 - (g) Distance from homeland. The proximity to homeland retards the assimilation process (Warner and Srole, 1945). Distance from the homeland produces an attitude receptive to the adoption of new society (Kent, 1953).
 - (h) Social agencies. "Social agencies probably played a larger role in the adjustment of the recent refugee than in that of any previous group of immigrants" (Kent, 1953, p. 234).
3. Personal attitudes.

Davie stated that "the degree of their (refugees) adjustment to American life was in direct proportion to their willingness to become adjusted" (1947, p. 325).

According to Kent, "assimilation . . . involves more than merely an intellectual acceptance of the new land. . . . It also involves feelings. It is an emotional as well as an intellectual process" (1953, p. 213). Thus, he contended that "the will to assimilate is important" and "the burden of adjustment rests upon" the refugee himself (1953, p. 239).

Personal attitudes are partly determined by the motivation to migrate (Eisenstadt, 1954; Garkovich, 1977) and partly by the situation of the immigrant in the host society during the period of readjustment--if successful this leads to satisfaction, identification, and acculturation (Richardson, 1967).

All the factors so far summarized are important to the assimilation process, but as Price said (1969), the assessment of these factors is often difficult.

Education of Immigrant Children

The second area related to the study of adaptation of the Indochinese refugee students into the new school setting is that of education of the immigrant children. For the assimilationists the role of the school is to socialize, or re-socialize, the immigrant children into the host core culture, attempting radical changes in the skills, behavior patterns, and values of these children to enable them to function smoothly within the host society. The school should make the process of assimilation of the immigrant children successful. From the assimilationist point of view, there is no serious problem arising from the education of the immigrant children. The younger the immigrant child is, the faster the assimilation

process. Saenger remarked: "all refugee children are completely Americanized within a year or two after their arrival" and "a similar successful adjustment, though usually not quite so rapid, can be noted among young adolescents" (1941, p. 124). Studying the adjustment of the young refugees in the United States, Davie found:

"Refugee children have adjusted themselves to life in this country with relative ease and speed as compared to the other generation. This might be expected, for the young are in general much more adaptable than their elders, and acquire a new language, new attitudes, and new customs with greater facility" (1947, p. 229).

With regard to academic achievement, Davie remarked:

"In spite of language handicaps the academic work of the young refugees has not only been up to standard, but by many educators is considered to have been above average of American students. . . . In New York City, where a special study was conducted of refugee children in the schools, the general opinion was held that the group as a whole had made a superior record, or at the least that it had contained an unusually high proportion of outstanding students. . . . At the high school level there was greater evidence of superior work" (1947, p. 226).

Davie's study suggested the following:

1. Sex plays a minor role in the adjustment of the refugee children.
2. Nationality background has no important bearing on adjustment (the refugee children here were Polish, German, Russian, Austrian).
3. Success in adjustment is related to age. The younger children were more successful than the elder.

As a conclusion, Davie said: "They have made an excellent adjustment in the home, the school, and the community" (1947, pp. 231-232).

It is noteworthy to mention that all these refugee children are white, coming from Europe, thereby having a cultural background which does not differ too much from that of the American children. These factors--race,

cultural similarities--may facilitate the process of adjustment. If we look at other immigrant groups which differ greatly from the Americans in terms of culture, skin color, religion, etc., many problems arise from the process of adaptation of these children to the new school setting. The Puerto Rican study in 1958 reported that "many newly arrived Puerto Rican pupils were not participating in classroom activities, were not learning but were quietly and unobtrusively 'sitting-out' their allotted school time" (in Cordasco, 1972, p. 365). But it was assumed in this study that "they can be expected to repeat the experience of other immigrant groups and become well assimilated by the third generation" and that "like other groups that have entered New York City, the Puerto Ricans in the normal course of events, will become socially and educationally assimilated by the third generation" (in Cordasco, 1972, p. 367). It was reported that the academic performance of these students tended to improve each succeeding year in the American school, but the rate of that improvement decreased after the fourth year. Their average IQ's and level of achievement in reading and mathematics were low, however, according to Cordasco (1972, pp. 15-16). The high dropout rate of Puerto Ricans exceeded that of Blacks. The percentage of dropout of the Puerto Ricans in high school was 56% (Weinberg, 1977, pp. 248-249). Elam (1960), working with the Puerto Ricans, encountered many children who reflected maladjustment problems including a range of behavior such as apathy, lack of social responsiveness, depressed intellectual functioning, hyperactivity, aggression, and lowered intellectual potential. The determining factors of that situation, according to Cordasco, are social class and Puerto Rican culture patterns that are neither understood or accepted by the middle-class American teachers.

This leads to "the attitudes of suspicion, hostility, animosity and fear expressed by many teachers." They are "reluctant to teach" in the schools with large Puerto Rican enrollments which are considered as "difficult," "unrewarding," and "even dangerous" (Cordasco, 1972).

A similar situation can be found in the United Kingdom with its immigrant children, especially those who come from West India. According to Bhatnagar (1970), a study by Little in 1968 on the education of immigrant children showed that the average performance of these students was significantly lower than that of the native students, and among these immigrant children (Cypriots, Pakistanis, and West Indians), the West Indians had the lowest performance. It was also found that those who spoke fluent English did better than others and that academic performance increased with the length of stay in the host society. Bhatnagar (1970), conducting his study on the adjustment of the immigrant children in London schools, found that there is no relationship between adjustment and length of stay in the host society, but there is positive relationship between adjustment and academic achievement among these children.

Study on the education of immigrants in Israel by Adler (1969) gave the similar results: there was a serious gap in scholastic success between the immigrant and the native students.

Considering the causes of the failure of the immigrant students in the new school setting, social scientists stress on the following:

1. Socio-economic.

Poor housing (slum area, multioccupation houses), under-nourishment, etc., constitute the first causal factor. Many social scientists agree that under such conditions the immigrant

children have little motive to succeed at school (Riesman, 1962; Deutsch, 1963; Cordasco, 1977). Many Puerto Ricans in New York City live in slums, and a large number of West Indians live in multioccupation houses in London (Bhatnagar, 1970).

2. Socio-cultural.

Each social class has its subculture, its norms, its values that differ from those of the others. Children of the lower class are not apt to adjust quickly to the norms and value of the schools which are often those of the middle class (Curry, 1962; Greenberg, 1965).

3. Language difficulty.

Even in the same society (speaking the same language) it is difficult for the children coming from lower-class family to cope with the language used in the school (Berstein, 1961, 1962; Deutsch, 1964). Understandably it is far more difficult for the immigrant children to learn in a foreign school. Furthermore, all academic subjects, even mathematics, require a certain knowledge of the host language in schools that are monolingual. Thus, many immigrant children fail to adjust to the new school setting because of this factor (Bowker, 1968; Cordasco, 1976). Elam wrote:

"Language is one of the tools for learning which the emigrant child lacks. He is left with the cues he can obtain from nonverbal communication. . . . Here too, however, a facial expression or a gesture may mean something else to him, since gestures are also a language and are richly colored by each culture with specific meanings. . . . As a result of these handicaps the child

begins to feel inadequate. He cannot solve all the problems of adjustment to a new land, new living, and new culture" (1960, p. 335).

4. School atmosphere and host attitude.

A warm atmosphere in the school--the acceptance, understanding, and tolerance of people in the new school--facilitates the adjustment of the immigrant children. On the contrary, prejudice, discrimination, and a nonaccepting attitude of these people, especially of the teachers, cause much frustration on the part of the immigrant children and make them reluctant to adapt to the new school setting (Cordasco, 1976; Bhatnagar, 1970).

5. Personal attitudes.

For the immigrant child, the attitude toward his education, his new school and teachers, and different school subjects is a crucial factor that contributes to his performance as well as to his adjustment and integration in the new school setting (Bowker, 1968; Bhatnagar, 1970). Lecky (1951) contended that "academic difficulties and social maladjustments are both conceived of as due to resistance arising from the subject's conception of himself." He further explained:

"If a student shows resistance toward a certain type of material, this means that from his point of view it would be inconsistent for him to learn it. If we are able to change the self-conception which underlies this viewpoint, however, his attitude toward the material will change accordingly" (p. 177).

In the same light, many other social psychologists think that students do poorly in school simply because the school subjects seem irrelevant to their self-concept and perceptual world (Purkey, 1970) and that when they

decide to learn a certain subject they will learn it, but they won't learn it when they are opposed or resistant to such learning (Brookover and Erickson, 1975). For:

"people do not behave according to the facts as others seem them; they behave according to the facts as they see them. What governs behavior from the point of view of the individual himself are his unique perceptions of himself and the world in which he lives, the meanings things have for him" (Combs and Snygg, 1959, p. 17).

Much vigorous research conducted by Brookover et al. (1962, 1965, 1967), Clark and Walberg (1968), Entwisle and Webster, Jr. (1974) seemed to support the assumption that changing the perception of the student about his ability to learn leads to parallel changes in academic achievement. Research by Diller (1954), Stotland and Zander (1958), Borislow (1962), and Dyson (1967), on the other hand, supported the hypothesis that success and failure affect the student's self-evaluation and self-perception of ability to learn.

These ideas when applied to the immigrant students in the host schools lead to the following assumptions:

1. Personal satisfaction is necessary for immigrant children to adjust to the new school setting (Richardson, 1967; Taft, 1963; Bhatnagar, 1970).
2. Personal satisfaction is gained through self-acceptance and acceptance of others (Bhatnagar, 1970). Personal satisfaction is gained through success during the period of readjustment (Richardson, 1967).
3. Personal satisfaction leads to identification (i.e. a feeling that he is liked, a desire to become more like the members of the host

society) (Richardson, 1967). Personal satisfaction facilitates or accelerates the process of acculturation, of learning in the new school setting (Bhatnagar, 1970), and hence relates to academic achievement (Bhatnagar, 1970).

The results of the study by Bhatnagar (1970) on the education of the immigrant children in London support these assumptions.

CHAPTER III. PROCEDURES

Research Methodology

The survey method was used in this study to collect data. A questionnaire was sent to the study's student subjects to fill out along with a letter to the student's parents asking them to give their permission to their child to participate in the study. The completed questionnaire and the parents' permission were returned by mail. A follow-up of nonrespondents was conducted later by telephone.

Before the study the questionnaire had been developed and tried out with a sample of 25 Indochinese refugee students in junior and senior high schools in Ames, Huxley, Marshalltown, Fort Dodge, and Waterloo in August 1978. Adjustment and clarification were made where ambiguities seemed to exist. The final form of the developed questionnaire (see Appendix A) consists of two main sections. The first section is composed of six background questions asking the subjects about their age, sex, ethnic group, grade level, time in the United States, language spoken at home, and difficulty in studying in the American schools. The second section includes twelve multi-item questions with items on a 5-point scale, asking the subjects to rate their attitudes and feelings toward school setting, their self-perception of ability of learning and understanding in the school, and to indicate what they perceive their academic standing to be in different school subjects in both the native and the host (U.S.) schools. Details of the construction of different scales and subscales as well as their reliability coefficients will be discussed later in this chapter.

The Study Group

The study group consisted, in principle, of all the Indochinese refugee students in junior and senior high schools (grade 7 through grade 12) in Iowa. A complete and accurate list of all these students was not available at any private organization or any public agency in Iowa. However, through different organizations such as the Vietnamese Associations in Ames, Des Moines, Iowa City, and the Association for the Positive Promotion of Lao Ethnic (APPLE), the Catholic Social Services in Des Moines, Davenport, and the area educational service in Ankeny, these students were identified and located in different cities in Iowa as shown in Table 3.1. The total number of these students (116) does not include the

Table 3.1. Number of identified Indochinese refugee students in different cities in Iowa

Name of city	Number of students
Ames	7
Clinton, Davenport	8
Des Moines	57
Eagle Grove	2
Fort Dodge	8
Harlan	2
Huxley	3
Iowa City	6
Jefferson	2
Madrid	1
Mount Pleasant	5
Oskaloosa	4
Waterloo, Cedar Falls	9
Webster City	2
Total	116

Hmong and the Cambodian because there are very few Cambodian and Hmong in Iowa. Thus, the two main ethnic groups included in this study are the Thaidam and the Vietnamese. All these students were enrolled in either elementary or secondary schools in their home countries (Laos and South Vietnam) before they came to the United States. For most of the students, 1978-79 was the fourth school year in Iowa. All of the students understood very well the easy and simple English as well as their native language.

The Measuring Instrument

Variables and method of assessment

The different variables and the method of assessment of these variables are listed and briefly described in Table 3.2. The whole questionnaire is reprinted in Appendix A. For purposes of analysis, each variable was assigned a code number corresponding to the number of the question in the questionnaire. These are shown in Table 3.2.

Construction of different subscales

The concept of adaptation to the school setting was operationally defined as a process made up by the following four components: (1) satisfaction with life and school setting, (2) perception of being liked in the school setting, (3) understanding language, teachers, lessons, and textbooks in the school, and (4) self-perception of ability to learn in the school. The first two components constitute the social-personal adjustment subscale and the other two the acculturation in the school context subscale, as diagrammed in Figure 3.1.

The subscales SATS and SATC The subscales SATS (or satisfaction with the new life and new school setting) and SATC (or satisfaction with

Table 3.2. Variables and method of assessment

No.	Subscales & scales	Variable label	Method of assessment
01	AGE	Age of the subject	Subjects report
02	SEX	Sex of the subject	Subjects report
03	ETHNIC	Ethnic group of the subject	Subjects report
04	GRADE	Grade level of the subject	Subjects report
05	LANG	Language spoken at home	Subjects report
06	DIFFI	Difficulty in studying in the American school	Multiple-choice item
07	SATS	Satisfaction with new life and new school setting	Specially constructed subscale (6 items)
08	BELIS	Perception of being liked in the new school setting	Specially constructed subscale (4 items)
09	UNDES	Understanding language, teachers, lessons, textbooks in the new school	Specially constructed subscale (4 items)
10	SEVAS	Self-perception of ability of learning different school subjects in the new school	Specially constructed subscale (5 items)
11	LIKES	Degree of liking a particular school subject in the new school	Specially constructed subscale (5 items)
12	ACADS	Academic standing in the new school	Subjects report their grade
13	SATC	Satisfaction with old life and old school setting	Specially constructed subscale (6 items)
14	BELIC	Perception of being liked in the old school setting	Specially constructed subscale (4 items)
15	UNDEC	Understanding language, teachers, lessons, textbooks in the old school	Specially constructed subscale (4 items)

Table 3.2. (continued)

No.	Subscales & scales	Variable label	Method of assessment
16	SEVAC	Self-perception of ability of learning in the old school	Specially constructed subscale (5 items)
17	LIKEC	Degree of liking a particular school subject in old school	Specially constructed subscale (5 items)
18	ACADC	Academic standing in the old school	Subjects report their grade

the old life and old school setting) were constituted with six (6) items each covering different aspects of student's life that relate to the school environment (either the new or the old school setting). The students responded to these items by choosing a number ranging from 5 (highest) to 1 (lowest) that reflected their views and feelings toward life and school setting.

The subscales BELIS and BELIC The subscale BELIS (or perception of being liked in the new school setting) and BELIC (or perception of being liked in the old school setting) are composed of four (4) items each, asking the students to set on a 5-point scale how much they think their teachers, their friends, their classmates, and other people like them.

The subscales UNDES and UNDEC The subscales UNDES (or understanding language, teachers, lessons, and textbooks in the new school) and UNDEC (or understanding language, teachers, lessons, and textbooks in the old school) were composed of four items each, asking the students how well they think they can understand the language spoken in the school, their teachers,

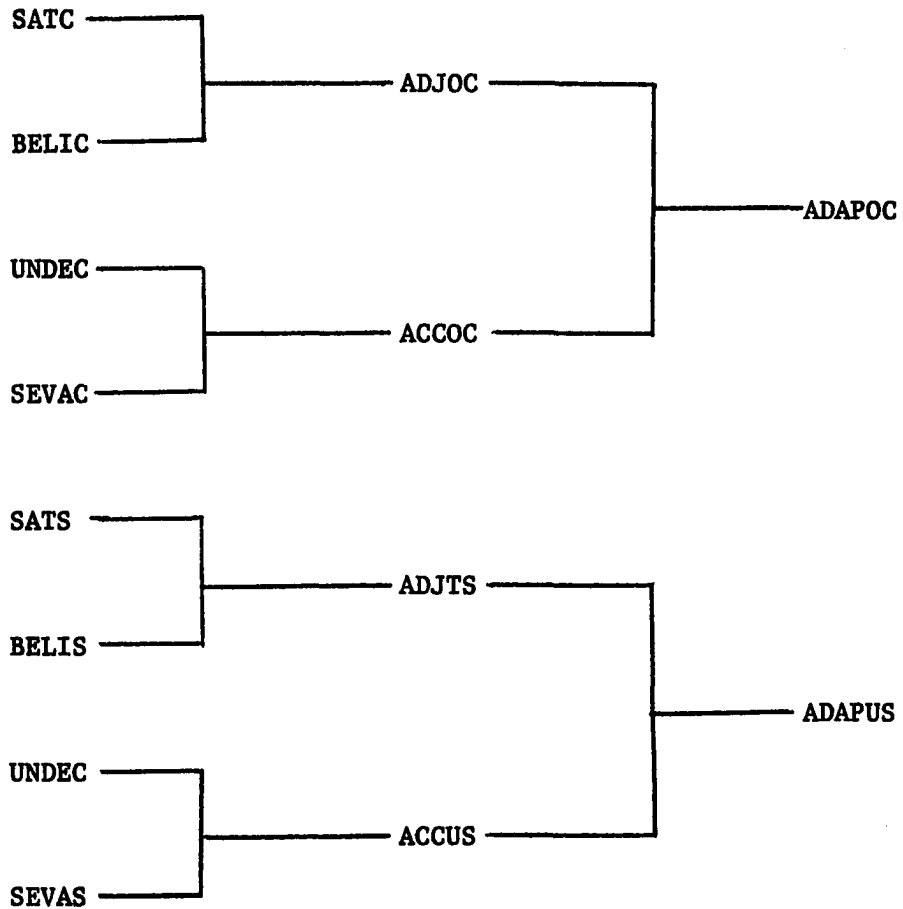


Figure 3.1. Diagram of subscales and scales of the measuring instrument

the lessons in the school, and the textbooks used in the school. The responses were on a 5-point scale as before.

The subscales SEVAS and SEVAC The subscales SEVAS (or self-perception of ability to learn in the new school) and SEVAC (or self-perception of ability to learn in the old school) were composed of five items each; each item relates to how the student perceives his ability to learn in a particular school subject. The students were asked how well they learned English, mathematics, science, social studies, and humanities in the American schools. They were also asked how well they learned mathematics, science, social studies, and humanities in their native schools. The felt ability to learn in a particular school subject was assessed by the students themselves on a 5-point scale.

The scales LIKES and LIKEC The scales LIKES (or degree of liking a particular school subject in the new school) and LIKEC (or degree of liking a particular school subject in the old school) were composed of five (5) 5-point scale items, asking the students how well they liked a particular school subject. The number of school subjects is five (5): English (or their native language), mathematics, science, social studies, and humanities.

The scales ACADS and ACADC Academic standing was operationally defined as the average grade of the student in different school subjects in the last examinations in the school. This was assessed by asking the students to report the grade they earned in the school on a 5-point scale (where 5 corresponds to A, 4 to B, and so on) in five different school subjects (the same as before).

Reliability of the measuring instrument

There are three principal ways of determining the reliability of a measuring instrument: (1) coefficient of stability, computed from test-retest, (2) coefficient of equivalence, computed from two parallel forms, and (3) coefficient alpha (internal consistency), computed from inter-item correlations. The first two methods cannot be used in the case at hand because of the following reasons. First, it is not easy to ask the Indo-chinese refugee students (especially the Thaidam) to fill out a questionnaire if it is not a formal test given by the teachers in the school which is seen as an obligation. It is harder, much much harder, to ask them to do it twice. If the questionnaire was administered in the school, it would be considered as a formal test regardless of explanations, and this could distort the true attitudes and feelings of the student subjects because of the unavoidable involvement of the social desirability factor. Second, the problem of language difficulty makes the students reluctant to answer a long and difficult questionnaire. It was stated earlier that all the student subjects can understand very well easy and simple English, but this does not mean that they can handle the new language as well as their host counterparts. It was feared that a long questionnaire with complicated sentences would abort the process of collecting data; thus, with the shorter and simpler questionnaire, one has greater chance to get responses.

Another difficulty concerns primarily the student's parents. Any time refugee student's parents are asked to give their written (signed) permission for their children to participate in a study, there is some hesitation (if not reluctance), even though the purpose of the study as well as the procedures of data analysis have been clearly explained. The

fact is that many of them (especially the less educated ones), after a long period of war and insecurity in the home country followed by drastic changes in their lives, are very skeptical and fearful of everything that is not normally and directly relevant to their daily life.

All these factors restricted the kinds of methods used to determine the reliability of the measuring instrument. The only feasible way for doing this was to compute the coefficient alpha after the questionnaire was administered to the study group.

The coefficients alpha of the different scales and subscales were computed and assessed before other analytical procedures were begun. It was assumed that if these coefficients were sufficiently high--ranging from .65 to .85--the measuring instrument would be seen as relatively reliable (Nunnally, 1967; Borg and Gall, 1971), and further data analyses could be made. If they were low (below .65), no further analytical procedures would be undertaken.

Statistical Analyses

Data specification

The information provided by the subjects in answering the questionnaire constituted the data for the study. Scores of different subscales (SATS, BELIS, UNDES, SEVAS, ACADS, SATC, BELIC, UNDEC, SEVAC, and ACADC) were computed by averaging the scores of all the items comprising them. For example, SATS had six items; the score of SATS subscale was computed by adding the scores of all six items comprising it and dividing the obtained total score by six. Since all items were on a 5-point scale, so were the scores of all scales and subscales. The computation of the scores of

different subscales was based on the inter-item correlation or internal consistency obtained from the results of the reliability study (coefficient alpha) by means of a SPSS program.

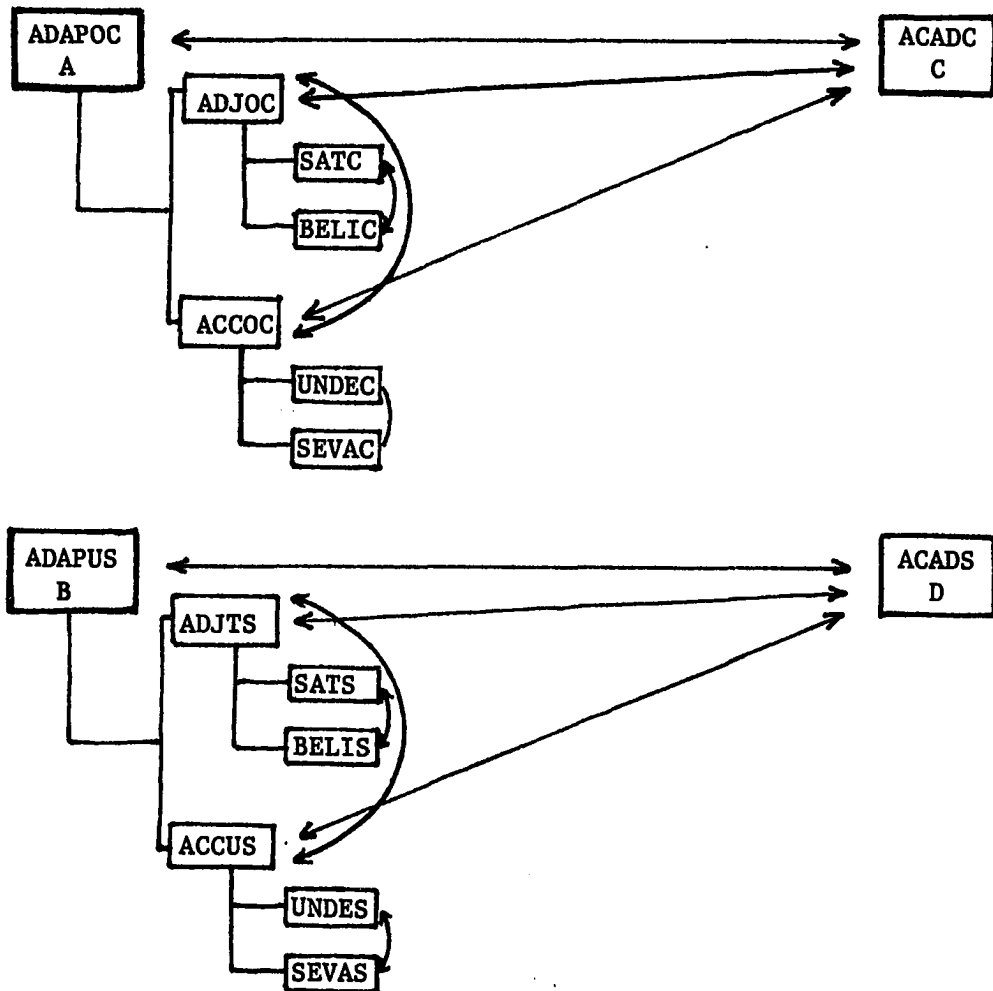
According to the theoretical ideas underlying the concept of perceived adaptation to the school setting previously presented, the following subscales were combined to form new subscales and scales (see Table 3.2 and Figure 3.1):

- Combination of SATC with BELIC gave ADJOC,
- Combination of UNDEC with SEVAC gave ACCOC,
- Combination of ADJOC with ACCOC gave ADAPOC,
- Combination of SATS with BELIS gave ADJTS,
- Combination of UNDES with SEVAS gave ACCUS, and
- Combination of ADJTS with ACCUS gave ADAPUS

These combinations were also based on the internal consistency principle. The two subscales which were combined to form a new subscale or scale must correlate each other positively and sufficiently highly so that the coefficient alpha of the newly formed subscale or scale can be above .65 (the minimum level of reliability set earlier for considering a subscale or scale as relatively reliable).

Correlational methods

In Figure 3.2 a diagram is presented to show the relationships studied among the different subscales and scales. The first part of the analytical procedures, using correlational methods to determine these relationships, was based on the scheme presented in that diagram. By means of the computer (SPSS program), three correlation matrices were computed (Appendix B).



- ACCOC = Acculturation in the old school context
 ACCUS = Acculturation in the new school context
 ADAPOC = Perceived adaptation to the old school setting
 ADAPUS = Perceived adaptation to the new school setting
 ADJOC = Social-personal adjustment to the old school setting
 ADJTS = Social-personal adjustment in the new school setting
 BELIC = Perception of being liked in the old school setting
 BELIS = Perception of being liked in the new school setting
 SATC = Satisfaction with old life and old school setting
 SATS = Satisfaction with new life and new school setting
 SEVAC = Self-perception of ability to learn in the old school
 SEVAS = Self-perception of ability to learn in the new school
 UNDEC = Understanding language, teachers . . . in old school
 UNDES = Understanding language, teachers . . . in new school

Figure 3.2. Relationships among subscales and scales

1. Correlation matrix I includes the following variables: SATS, BELIS, UNDES, SEVAS, LIKES, ACADS, SATC, BELIC, UNDEC, SEVAC, LIKEC, and ACADC.
2. Correlation matrix II includes the following variables: ADJTS, ACCUS, ACADS, ADJOC, ACCOC, and ACADC.
3. Correlation matrix III includes the following variables: ADAPUS, ACADS, ADAPOC, and ACADC.

Based on these correlation matrices, tests were made of the significance of the different correlation coefficients related to the four parts of hypothesis 1, which stated that among the Indochinese refugee students in Iowa junior and senior high schools, there is:

- relationship between the perception of being liked by others in the school setting and the satisfaction with life and academic setting.
- relationship between perceived understanding language, teachers, lessons, textbooks, and the perceived ability to learn different school subjects.
- relationships among social-personal adjustment, acculturation in the school context, and academic standing in the American school as well as in the native school.
- relationship between perceived adaptation to the academic setting and academic standing in the school.

The correlation coefficients related to the four parts of hypothesis 1 are:

- (a) Related to part a of hypothesis 1:
 - the correlation coefficient of SATS with BELIS
 - the correlation coefficient of UNDES with SEVAS

(b) Related to part b of hypothesis 1:

- the correlation coefficient of SATC with BELIC
- the correlation coefficient of UNDEC with SEVAC

(c) Related to part c of hypothesis 1:

- the correlation coefficient of ADJTS with ACCUS
- the correlation coefficient of ADJTS with ACADS
- the correlation coefficient of ACCUS with ACADS
- the correlation coefficient of ADJOC with ACCOC
- the correlation coefficient of ADJOC with ACADC
- the correlation coefficient of ACCOC with ACADC

(d) Related to part d of hypothesis 1:

- the correlation coefficient of ADAPUS with ACADS
- the correlation coefficient of ADAPOC with ACADC

To test hypothesis 2 which stated that there is a relationship between perceived adaptation to the new school setting and academic standing in a culture-linked subject (such as social studies) among the Indochinese refugee students in Iowa junior and senior high schools, the correlation coefficient of ADAPUS (perceived adaptation to the new school setting) with ACADUS4 (academic standing in social studies in the new school) was computed, and the significance of that correlation coefficient was tested.

The same procedure was used to test hypothesis 3, which stated that there is relationship between the degree of liking a particular school subject and the academic standing in that subject among the Indochinese refugee students in Iowa junior and senior high schools. Here the correlation coefficients were:

- correlation coefficient of LIKEUS1 (degree of liking English) with ACADUS 1 (academic standing in English).
- correlation coefficient of LIKEUS 2 (degree of liking mathematics) with ACADUS2 (academic standing in mathematics).
- correlation coefficient of LIKEUS 3 (degree of liking science) with ACADUS 3 (academic standing in science).
- correlation coefficient of LIKEUS4 (degree of liking social studies) with ACADUS 4 (academic standing in social studies).
- correlation coefficient of LIKEUS5 (degree of liking humanities) with ACADUS 5 (academic standing in humanities).

t-test techniques

For hypothesis 4, which stated that the academic standing mean score of the Indochinese refugee students in a nonculture-linked subject (such as mathematics) is significantly higher than that in a culture-linked subject (such as social studies), a t test (pairs) was used to test the difference:

$$\bar{X}_{12b} - \bar{X}_{12d}$$

where \bar{X}_{12b} was the mathematics academic standing mean score, and \bar{X}_{12d} the social studies academic standing mean score.

Another t test (pairs) was performed to test hypothesis 5 which stated that the academic standing mean score of the Indochinese refugee students in the native school (\bar{X}_C) is significantly higher than that in the host school (\bar{X}_D).

Regarding hypothesis 6 stating that the perceived adaptation mean score of the Indochinese refugee students in the native school (\bar{X}_A) is

significantly higher than that in the host school (\bar{X}_B), another t test (pairs) was used to test the significance of the difference $\bar{X}_A - \bar{X}_B$.

For hypothesis 7, which stated that in the American school the Indo-chinese refugee students like a nonculture-linked subject (such as mathematics) significantly more than a culture-linked subject (such as social studies), a t test (pairs) was performed to test the difference:

$$\bar{X}_{11b} - \bar{X}_{11d}$$

where \bar{X}_{11b} was the mean score of degree of liking mathematics and \bar{X}_{11d} that of degree of liking social studies.

Multiple regression and path analyses

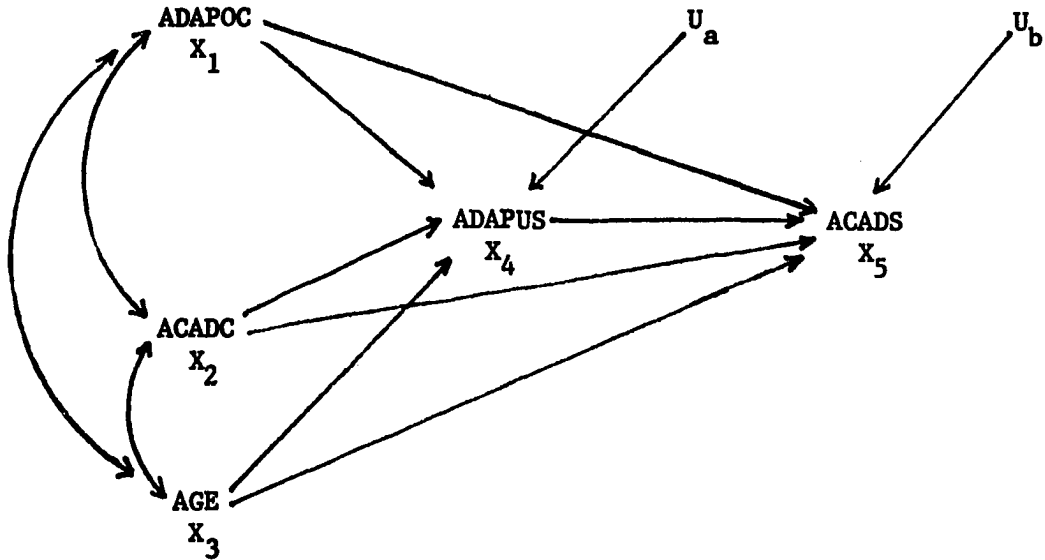
Based on the results of the correlational and t test analyses above described the next step taken was to further explore the different significant factors that contributed to the perceived adaptation to the new school setting and to the academic standing in the new school. Two series of regression equations were performed for this purpose. The first series took the perceived adaptation to the new school setting (ADAPUS) as dependent variable and other factors such as AGE, ADAPOC (perceived adaptation to the old school setting), ACADC (academic standing in the old school) as independent variables. The general model was of the following form:

$$\text{ADAPUS} = B_0 + B_1\text{ADAPOC} + B_2\text{ACADC} + B_3\text{AGE} + e_1 \quad (\text{I})$$

The second series of regression equations took academic standing in the new school as dependent variable and other variables (AGE, ADAPOC, ACADC, ADAPUS) as independent variables. The model was of the form:

$$\text{ACADS} = B_0 + B_1\text{ADAPOC} + B_2\text{ACADC} + B_3\text{AGE} + B_4\text{ADAPUS} + e_2 \quad (\text{II})$$

These two series of multiple regression analyses provided the information necessary for further analysis in the light of a recursive model that could take the form figured in the following diagram.



Based on the results of the multiple regression analysis, the appropriate path model was determined that could explain the causal relationships among variables. This was not to test a pre-existing hypothesis but to explore and build a model for future research.

CHAPTER IV. FINDINGS AND INTERPRETATIONS

Descriptive Statistics

One hundred sixteen (116) questionnaires were sent to the Thaidam and Vietnamese constituting the list of student subjects of the study on December 20, 1978. During the two following weeks, sixty-five (65) filled out questionnaires (with parents' permission) were returned. The follow-up conducted by telephone during the period from January 4 to January 13, 1979, raised the number of respondents from sixty-five (65) to ninety-six (96), more than 82%. From the twenty (20) who did not respond, some said that they already sent the questionnaire back, some others said that they would (but never did) do it. Few parents were reluctant to sign the permission to allow their children to participate in the study.

The distribution of the respondents in terms of ethnic group, age, sex, and grade is presented in Table 4.1 and Table 4.2.

Table 4.1. Distribution of Thaidam-Vietnamese student respondent in Iowa junior and senior high school by ethnic group and sex

Sex	Ethnic group		Total
	Thaidam	Vietnamese	
Male	16	26	42
Female	16	38	54
Total	32	64	96

Table 4.2. Distribution of Thaidam-Vietnamese student respondents in Iowa junior and senior high schools by grade, ethnic group, and age

Age	Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12	
	T ^a	V ^b	T	V	T	V	T	V	T	V	T	V
13		6		1								
14		1	1	7		2						
15	1		3		1	9	2	3				
16			2		4	3	1	8		2		
17					2		3	2	3	5		5
18							1		2	5	1	2
19											3	3
20											2	
Total	1	7	6	8	7	14	7	13	5	12	6	10
Grand total:	96											

^aT = Thaidam.

^bV = Vietnamese.

As seen from these tables, the number of Vietnamese is double that of Thaidam. Among the Vietnamese there are more females than males; among the Thaidam the number of females equals that of males. If age is compared between these two ethnic groups, the Thaidam are a little older than the Vietnamese within the same grade. The reason is that in their native country they attend school later than the Vietnamese. "The normal age for entering elementary school is six years old, however, many (Thaidam-Lao) do not enter until a later age" (Saythongphet, 1976), while most of the Vietnamese enter the first grade of elementary school at the age of six (Hunter and Nguyen, 1977). More than 80% of all these students had been enrolled in the American schools for more than three years; about one-fifth

(19.8%) had been enrolled in the American schools less than three years. Many of them (68.8%) reported that they speak their native language at home; others (30.2%) said that they speak both English and their native language at home, and only one student speaks English at home. More than 80% of the respondents said that they have some difficulties in studying in the American schools; the rest (18.8%) reported that they have no such difficulties.

Reliability

The reliability of the various parts of the measuring instrument was determined before other analytical procedures were pursued. With the number of $N = 96$, the SPSS program of reliability gave the results summarized in Table 4.3. The reliability coefficients (alpha) range from .75135 to .91856; all are far above the minimum value set earlier for considering a scale or a subscale as relatively reliable to be used in the study. Thus, no scale or subscale was deleted.

Findings Not Directly Related to Hypotheses

There are seven background factors in the first section of the questionnaire, namely: age, sex, ethnic group, time in the United States, grade level, language spoken at home, and difficulty in studying in the American school. None of these factors relate directly to the hypotheses formulated. However, data related to these factors are presented for descriptive purposes.

Table 4.3. Reliability coefficients of scales and subscales of the measuring instrument

Subscales & scales	Label	Number of items	Mean	Variance	Standard deviation	Inter- item corr. mean	Coeffi- cient alpha
SATS	Satisfaction with new life and new school setting	6	22.66667	14.01404	3.74353	.41458	.80596
BELIS	Perception of being liked in the new school setting	4	14.60417	7.73640	2.78144	.49136	.79215
UNDES	Understanding language, teachers, lessons, textbooks in the new school	4	14.16667	8.81404	2.96884	.68726	.89487
SEVAS	Self-perception of ability of learning in the new school	5	18.35417	13.19956	3.63312	.38853	.75135
SATC	Satisfaction with old life and old school setting	6	25.75000	14.86316	3.85528	.51132	.86137
BELIC	Perception of being liked in the old school setting	4	16.50000	7.78947	2.79076	.57920	.84313
UNDEC	Understanding language, teachers, lessons, textbooks in the old school	4	17.92708	7.07884	2.66061	.73850	.91856
SEVAC	Self-perception of ability of learning in the old school	5	20.88542	10.79726	3.28592	.48516	.81224
ADJTS	Social-personal adjustment in the new school setting	2	7.42882	1.53009	1.23733	.75854	.85982

ACCUS	Acculturation in the new school context	2	7.21250	1.82658	1.35151	.69322	.81871
ADJOC	Social-personal adjustment in the old school setting	2	8.41667	1.55848	1.24839	.73469	.84540
ACCOC	Acculturation in the old school context	2	8.65885	1.50400	1.22638	.72025	.83734
ADAPUS	Perceived adaptation to the new school setting	2	14.64132	4.99209	2.23430	.52095	.81206
ADAPOC	Perceived adaptation to the old school setting	2	17.07552	5.42546	2.32926	.68747	.89736

Age

The mean age of the study group is 16.0625 years; the range is 7 years (the lowest is 13 and the highest 20). When age is correlated with perceived adaptation to the new school setting (ADAPUS) and with academic standing in the new school (ACADS), the correlation coefficients are $-.2371$ and $-.2897$, respectively. Both are significant at .01 level (with degrees of freedom = 95). This finding seems to confirm the traditional view that age varies inversely with adaptation. And because perceived adaptation to the new school setting correlates positively with academic standing in the new school ($r = .5547$), so age also correlates negatively with academic standing in the new school. This means that the younger the refugee student in this study, the more successful his adaptation to the new school setting and the higher his academic standing in the new school.

Grade level

Because the study group consists of students in secondary schools (junior and senior high), the lowest grade is 7th and the highest 12th. The correlation between grade level and age is positive, very high, but not perfect: $r = .8713$. However, the correlation between grade level and perceived adaptation to the new school setting (ADAPUS) is only $-.1592$, not significant at .05 level. The correlation between grade level and academic standing in the new school (ACADS) is $-.2204$, significant at .05 level (with degrees of freedom = 95). Thus, grade level does not correlate with perceived adaptation to the new school setting and academic standing in the new school as well as age. When the subjects are divided into two groups, with group 1 including the junior high school students and group 2 the

senior high school students, and t tests (groups) are performed using perceived adaptation to the new school setting (ADAPUS) and academic standing in the new school (ACADS) as dependent variables, the results are as shown in Table 4.4.

Table 4.4. t tests of the difference between the junior and the senior groups of the Indochinese refugee students in Iowa secondary schools in terms of perceived adaptation and academic standing

Variable	N	Mean	Difference	T-value	2-tail probability
ADAPUS					
Group 1	43	3.7640	.1877	1.63	.107
Group 2	54	3.5763			
ACADS					
Group 1	43	3.9209	.3058	2.02	.047
Group 2	53	3.6151			

From the results of the t tests, it can be seen that there are no significant (at .05 level) differences between these two groups in terms of perceived adaptation to the new school setting as well as in terms of academic standing in the new school.

Sex

Analysis of the data indicates that there is no significant difference between males and females in terms of perceived adaptation to the new school setting (ADAPUS) nor in terms of academic standing in the new school (ACADS). This is shown by the results of the two t tests (groups) presented in Table 4.5.

Table 4.5. t tests of difference between male and female Indochinese refugee students in Iowa junior and senior high schools in terms of perceived adaptation and academic standing

Variable	N	Mean	Difference	t-value	2-tail probability
ADAPUS					
Male	42	3.6813			
Female	54	3.6440	.0373	.33	.745
ACADS					
Male	42	3.7619			
Female	54	3.7444	.0175	.12	.909

These results disconfirm the view that female immigrants tend to be more well-adapted to the host society than male immigrants.

Ethnic group

When ethnic group is considered as a differentiating category, there is no significant difference found between the Thaidam and the Vietnamese in terms of perceived adaptation to the new school setting (ADAPUS), but there is significant difference between them in terms of academic standing in the new school. Table 4.6 shows the results of the two t tests (groups) performed to test these differences. Difference between the Thaidam and the Vietnamese in terms of academic standing in the new school may be explained as follows:

First, Laos is not the true homeland of the Thaidam students in this study. Even though they were born in Laos, they were really the second generation of the Thaidam refugees in that country.

Table 4.6. t tests of difference between the Thaidam and the Vietnamese refugee students in Iowa junior and senior high schools in terms of perceived adaptation and academic standing

Variable	N	Mean	Difference	T-value	2-tail probability
ADAPUS					
Thaidam	32	3.5490			
Vietnamese	64	3.7160	-.1670	-1.56	.121
ACADS					
Thaidam	32	3.4812			
Vietnamese	64	3.8875	-.4063	-2.83	.006*

*Significant at .05 level.

Second, education in Laos until the early 1970's was not independent from the French language. In secondary school (in Laos), French still was used as media of instruction. Because of this, French was taught early in elementary school (Saythongphet, 1976; Outsama, 1977). These factors may affect the ability and performance of the Thaidam refugee students in their native school. In Lao schools the Thaidam refugee students were considered as culturally disadvantaged. As a consequence, their educational background is relatively weak compared with that of the Vietnamese who studied in their homeland where the media of instruction was their native language.

Time in the United States

The mean of school year in the United States of the Indochinese refugee students in this study is 3.777. When the students are arbitrarily divided into two groups, with group 1 having four years of schooling in the United States and group 2 having three years and less, and t tests (groups)

are performed to test the difference between these two groups in terms of perceived adaptation to the new school setting (ADAPUS) and in terms of academic standing in the new school (ACADS), the results show no significant difference as seen in Table 4.7.

Table 4.7. t tests of difference between Time 1 group and Time 2 group of the Indochinese refugee students in Iowa junior and senior high schools in terms of perceived adaptation and academic standing

Variable	N	Mean	Difference	T-value	2-tail probability
ADAPUS					
Group 1	77	3.6889			
Group 2	19	3.5447	.1442	1.17	.249
ACADS					
Group 1	77	3.8208			
Group 2	19	3.4737	.3471	1.88	.070

These results seem to disconfirm the traditional view that adaptation correlates positively with the length of stay in the host country but confirm Bhatnagar's finding (1970) that adjustment is not related to time in the host country. In this study the difference in time (in the U.S.) between the two groups is only one year. This explains why time had no significant effect on ADAPUS and ACADS. If the difference in time was two years or more, the results of the t tests may have been significant. Unfortunately this could not be done because the number of the refugee students who have two years or less of schooling in the United States is very small (only two).

Language used at home

When the subjects are divided into two groups, with group 1 speaking their native language at home and group 2 speaking both English and their native language, and t tests (groups) are performed to test the difference between these two groups in terms of perceived adaptation to the new school setting (ADAPUS) and in terms of academic standing in the new school (ACADS), the results (presented in Table 4.8) show no significant difference.

Table 4.8. t tests (groups = language used at home)

Variable	N	Mean	Difference	T-value	2-tail probability
ADAPUS					
Group 1	66	3.6427	-.0565	-.45	.652
Group 2	30	3.6992			
ACADS					
Group 1	66	3.7667	.0467	.29	.773
Group 2	30	3.7200			

Difficulty in studying in the American school

Seventy-eight (78) subjects reported that they have some difficulty in studying in the American school; the rest (18) said that they have no such difficulty. t tests performed to test the differences between these two groups (group 1 having difficulty, group 2 having no difficulty) in terms of perceived adaptation to the new school setting (ADAPUS) and in terms of academic standing in the new school (ACADS), show that the differences between these two groups are highly significant (Table 4.9).

Table 4.9. t tests (groups = difficulty in studying in the American school)

Variable	N	Mean	Difference	T-value	2-tail probability
ADAPUS					
Group 1	78	3.5603			
Group 2	18	4.0937	-.5334	-3.63	.001**
ACADS					
Group 1	78	3.6308			
Group 2	18	4.2778	-.6470	-3.68	.001**

**Significant at .01 level.

However, difficulty in studying in the American school cannot be seen as an independent variable. It is rather another index of adaptation to the new school setting, which is a resulting factor rather than a determining factor. As stated before, when the adaptation process is not complete, the refugee student still is in the transition stage and, as such, is still experiencing the difficulties of this stage. These difficulties may set limits on the performance of the refugee student in the new school.

Findings Related to Hypotheses

Findings related to hypothesis 1

There are four different parts in hypothesis 1:

(a) Part a hypothesized that there are:

- relationship between SATS (or satisfaction with new life and new school setting) and BELIS (or perception of being liked in the new school setting)

- relationship between UNDES (or understanding language, teachers, lessons, and textbooks in the new school) and SEVAS (or self-perception of ability to learn in the new school)

(b) Part b hypothesized that there are:

- relationship between SATC (or satisfaction with old life and old school setting) and BELIC (or perception of being liked in the old school setting)
- relationship between UNDEC (or understanding language, teachers, lessons, and textbooks in the old school) and SEVAC (or self-perception of ability of learning in the old school)

From the correlation matrix I (Appendix B), the correlation coefficients of these pairs of variables are .7585; .6932; .7347; .7203, respectively. With ninety-five degrees of freedom ($df = 95$), all these correlation coefficients are significant beyond the .001 level. Thus, parts a and b of hypothesis 1 are fully supported by these results. That is,

- those who perceive that they are liked by other people in the school also experience satisfaction with life and academic setting (either in the old or in the new school settings)
- those who understand language, teachers, lessons, and textbooks in school hold a higher self-perception of ability to learn in that school than those who do not

(c) Part c of hypothesis 1 stated that there are relationships among the following variables

- in the new school: ADJTS (or social-personal adjustment in the new school), ACCUS (or acculturation in the new school context), and ACADS (or academic standing in the new school)

- in the old school: ADJOC (or social-personal adjustment in the old school), ACCOC (or acculturation in the old school context), and ACADC (or academic standing in the old school)

The findings related to this part are presented in Table 4.10 (correlation matrix II in Appendix B).

Table 4.10. Correlation matrix II

	ADJTS	ACCUS	ACADS	ADJOC	ACCOC	ACADC
ADJTS	---	.4887***	.1973*			
ACCUS		---	.7365***			
ACADS			---			
ADJOC				---	.7717***	.6943***
ACCOC					---	.8272***
ACADC						---

*Significant at .05 level.

***Significant at .001 level.

All the correlation coefficients above presented are significant beyond the .001 level (with degrees of freedom = 95), except the correlation between ADJTS and ACADS which is significant only at .05 level. These results fully support part c of hypothesis 1. That is, those who are well-adjusted to a school setting (either the old or the new one) are also well-acculturated to that school setting and have a higher academic standing in that school than those who do not.

- (d) Part d of hypothesis 1 stated that there is a relationship between perceived adaptation to the new school setting (ADAPUS) and academic standing in the new school (ACADS), and there is a

relationship between perceived adaptation to the old school setting (ADAPOC) and academic standing in the old school (ACADC).

It is found that the correlation coefficient between ADAPUS and ACADS is .5547 which is significant beyond the .001 level (with degrees of freedom = 95) and the correlation coefficient between ADAPOC and ACADC is .8077 which is also significant beyond the .001 level (with $df = 95$) (see correlation matrix III, Appendix B).

These results fully support part d of hypothesis 1. That is, those who perceive themselves as well-adapted to a school setting have a higher academic standing in that school than those who do not.

The results related to hypothesis 1 so far presented need some further explanations:

First, from the correlation matrix I (Appendix B), it can be seen that the correlation between SATS (satisfaction with new life and new school setting) and BELIS (perception of being liked in the new school setting) is relatively high ($r = .76$). This confirms the theory that when the refugee students in this study perceive themselves as being accepted and liked by other people in the new school setting, they have a positive attitude toward the new environment and have a feeling of satisfaction with the new life and new academic setting. This also supports the assumptions underlying the fact of combining these two variables to form the subscale of ADJTS (or social-personal adjustment in the new school). The same remarks can be made about the corresponding variables in the native school setting: SATC (satisfaction with old life and old school setting) and BELIC (perception of being liked in the old school setting). Here the correlation coefficient is .73, a little lower than that in the new school setting but high

enough for permitting a combination to form the subscale of ADJOC (social-personal adjustment in the old school setting).

Second, the correlation between UNDES (understanding language, teachers, lessons, and textbooks in the new school) and SEVAS (self-perception of ability to learn in the new school) is also relatively high ($r = .69$). This supports the idea that when the refugee students (in this study) understand the host language, the host teachers, the lessons, and textbooks in the new school, they feel free from difficulties of the transition stage and then perceive themselves as having the ability to learn different school subjects in the new school as well as they did in their native school. Thus, there is reason for combining these two variables to form the subscale of ACCUS (or acculturation in the new school context). The same remarks can be made with regard to UNDEC (understanding language, teachers, lessons, and textbooks in the old school) and SEVAC (self-perception of ability to learn in the old school). The correlation coefficient here is .72, a little higher than its counterpart in the new school, permitting the combination of these two variables to form the subscale of ACCOC (or acculturation in the old school context).

Third, from the correlation matrix II (Table 4.10), the correlation between ADJTS (social-personal adjustment in the new school) and ACADS (academic standing in the new school) is low ($r = .20$), but the correlation between ACCUS (acculturation in the new school context) and ACADS and that between ACCUS and ADJTS are relatively high (.74 and .49, respectively). This suggests that ADJTS does not directly affect ACADS. Rather, ADJTS affects ACCUS which, in turn, influences ACADS, that is, successful social-personal adjustment in the new school setting facilitates the process of

acculturation in the new school context which, in turn, influences the academic performance in the new school. If this is the case, then it lends credence to Richardson's theory stating that if the period of readjustment is successful, the refugee is satisfied with his new life, and this leads to the acculturation level of assimilation (Richardson, 1967). In the case at hand, it can be said that if social-personal adjustment in the new school setting is successful, it enhances the process of acculturation to the new school setting which, in turn, increases the level of academic standing in the new school.

Fourth, when ADJTS (social-personal adjustment in the new school) and ACCUS (acculturation in the new school context) are combined to form the scale of ADAPUS (perceived adaptation to the new school setting), the correlation between ADAPUS and ACADS (academic standing in the new school) is still high ($r = .55$). But as shown in the correlation matrix III (Appendix B), ADAPUS also correlates positively and highly with ADAPOC (perceived adaptation to the old school setting) and with ACADC (academic standing in the old school); the correlation coefficients here are .54 and .52, respectively. This suggests the following:

- ADAPOC influences ADAPUS, that is, those who perceive themselves as well-adapted to the old school setting are likely to be more well-adapted to the new school setting than those who do not.
- ACADC also influences ADAPUS, that is, those who held a high academic standing in their native school seem to adapt to the American school setting better than those who did not.

- ADAPUS, in turn, influences ACADS, that is, those who perceive themselves as well-adapted to the new school setting, have higher standing in the new school than those who do not.

This is logical because, in general, those who were apt to work in their native school and who were able to succeed in academic activities would likely also adapt better to the new school setting and consequently perform better in academic subjects in the new school than those who did not.

Findings related to hypothesis 2

When ADAPUS (perceived adaptation to the new school setting) is correlated with ACADUS4 (academic standing in social studies in the new school), the correlation coefficient is .4293 which is positive and significant beyond the .001 level (with degrees of freedom = 95). This supports the hypothesis that there is relationship between perceived adaptation to the new school setting and academic standing in a culture-linked subject such as social studies in the new school.

In fact it is found that perceived adaptation to the new school setting not only correlates positively with academic standing in social studies but also correlates positively with academic standing in other school subjects as well. Table 4.11 shows the correlation coefficients of ADAPUS (perceived adaptation to the new school setting) with ACADUS1 (academic standing in English), ACADUS2 (academic standing in mathematics), ACADUS3 (academic standing in science), ACADUS4 (academic standing in social studies), and ACADUS5 (academic standing in humanities).

Table 4.11. Correlation between perceived adaptation to the new school setting and academic setting in different school subjects

	ACADUS1	ACADUS2	ACADUS3	ACADUS4	ACADUS5
ADAPUS	.4444***	.3309***	.4291***	.4293***	.3441***

***Significant at .001 level.

All these correlation coefficients are positive and significant beyond the .001 level (with $df = 95$). But a closer look at these correlation coefficients reveals two differentiated levels: (1) those which are above .42 and (2) those which are below .34. Although the difference between these two levels is only .06 (perhaps statistically not significant), it is worth explaining, and the proposed explanations for these two levels of correlation are as follows:

Level 1 with higher correlation coefficients suggests that the school subjects involved are more dependent on English language and American culture background. These school subjects are: English (with $r = .4444$), science (with $r = .4291$), and social studies (with $r = .4293$).

Level 2 with lower correlation coefficients suggests that the subjects involved are dependent on the adaptation to the new school setting but not as much on the English language as the other subjects in the first level. These subjects are mathematics (with $r = .3309$) and humanities (with $r = .3441$) which are art and music in this study.

Finding related to hypothesis 3

When the perceived degree of liking a particular school subject is correlated with academic standing in that subject, the correlation coefficients are all positive and highly significant. Table 4.12 shows these correlation coefficients.

Table 4.12. Correlation between degree of liking a particular school subject and academic standing in that subject

Variables involved	Correlation coefficient
Liking English and academic standing in English	.2483**
Liking mathematics and academic standing in mathematics	.3658***
Liking science and academic standing in science	.6610***
Liking social studies and academic standing in social studies	.4400***
Liking humanities and academic standing in humanities	.6605***

**Significant at .01 level.

***Significant at .001 level.

Thus, hypothesis 3 stating that there is relationship between the degree of liking a particular school subject and academic standing in that subject is fully supported by the results above presented.

However, although all these correlation coefficients are positive and highly significant, they do differ greatly in magnitude. The lowest is only .2483 while the highest is .6610 (the range is .4127). Lecky (1951) contended that when a student perceives that a school subject is consistent with his self-concept, he will like that subject and will learn it better

than other subjects. Brookover and Erickson (1975) suggested the same idea. These ideas are, however, only partly true, based on the results above reported. If these ideas can explain the positive relationship between the degree of liking a particular school subject and the performance on that subject, they do not explain why there are differences in magnitude among these positive relationships. An alternative explanation is that the academic standing in a particular school subject depends not only on the positive attitude of the student toward this subject but also on the aptitude or background of the student on this subject. A student may like mathematics, and because he likes mathematics he may spend a lot of time and effort to study that subject--and this can help such learning--but there is no guarantee that he will earn a high grade in mathematics. English (like Lao and Vietnamese), mathematics, and humanities are more liked by the Indochinese refugee students than other school subjects (as shows Table 4.13), but because of the language difficulty, they do not succeed in English perhaps as much as they wanted. As a consequence, the correlation between liking English and academic standing in English is relatively low compared to others.

Findings related to hypothesis 4

As shown in Table 4.13, the mean score of academic standing in mathematics (nonculture-linked subject) is 4.1875 while that in social studies (culture-linked subject) is only 3.4792. A t test (pairs) performed to determine the significance of the difference between these two mean scores give the following results presented in Table 4.14.

Table 4.13. Means of liking, self-perception of ability of learning, and academic standing a particular school subject

Subject	Mean of liking	Mean of self-perception of learning	Mean of academic standing
English	4.0000	3.6875	3.9167
Mathematics	4.4167	4.2500	4.1875
Science	3.4583	3.3958	3.4479
Social studies	3.3854	3.3438	3.4792
Humanities	3.8333	3.6771	3.7292

Table 4.14. t test of difference between mathematics mean score and social studies mean score

Variable	N	Mean	Difference	T-value	DF	2-tail probability
Mathematics		4.1875				
Social studies	96	3.4792	.7083	5.98	95	.000***

***Significant at .001 level.

These results support hypothesis 4 which stated that the academic standing of the Indochinese refugee students in a nonculture-linked subject such as mathematics would be significantly higher than that in a culture-linked subject such as social studies.

Findings related to hypothesis 5

A t test (pairs) performed to test the difference between the mean score of academic standing in the native school (ACADC) and the mean score of academic standing in the new school (ACADS) and its results are presented in Table 4.15.

Table 4.15. t test of difference between academic standing in the native school and that in the new school

Variable	N	Mean	Difference	T-value	DF	2-tail probability
ACADC	96	4.1187	.3667	4.72	95	.000***
ACADS		3.7521				

***Significant at .001 level.

The t test indicates that the difference is significant beyond the .001 level. These results support the hypothesis that academic standing of the Indochinese refugee students in the native school is significantly higher than that in the host school. The reason for this is that they still are in the transition stage which entails many difficulties that set limits on their ability to learn and academic performance in the new school.

Finding related to hypothesis 6

Another t test (pairs) was used to test the difference between the mean score of perceived adaptation to the old school setting (ADAPOC) and the mean score of perceived adaptation to the new school setting (ADAPUS). The test and its results are presented in Table 4.16.

Table 4.16. t test of difference between perceived adaptation to the old school setting and perceived adaptation to the new school setting

Variable	N	Mean	Difference	T-value	DF	2-tail probability
ADAPOC	96	4.2689	.6086	10.91	95	.000***
ADAPUS		3.6603				

***Significant at .001 level.

The test shows that the difference is significant beyond the .001 level. These results support the hypothesis that the perceived adaptation to the native school of the Indochinese refugee students is significantly higher than their perceived adaptation to the new school setting. This also indicates that these students still are in the transition state and that the process of adaptation of these students to the host school is not completed yet.

Findings related to hypothesis 7

A last t test (pairs) was performed to test the difference between the degree of liking a nonculture-linked subject such as mathematics (LIKEUS2) and the degree of liking a culture-linked subject such as social studies (LIKEUS4). The test and its results are presented in Table 4.17.

The test indicates that the difference is significant beyond the .001 level. These results support the hypothesis that the Indochinese refugee students like a nonculture-linked subject (such as mathematics)

Table 4.17. t test of difference between the degree of liking mathematics and that of social studies

Variable	N	Mean	Difference	T-value	DF	2-tail probability
LIKEUS2	96	4.4167	1.0313	8.07	95	.000***
LIKEUS4		3.3854				

***Significant at .001 level.

significantly more than a culture-linked subject (such as social studies) in the American school.

Multiple Regression and Path Analyses

Multiple regression analysis

Previous analysis showed that sex, time in the United States, and language spoken at home have no significant influences on either perceived adaptation to the new school setting or academic standing in the new school. But age is a significant contributive factor to the variance of both ADAPUS (perceived adaptation to the new school setting) and ACADS (academic standing in the new school).

Thus, using ADAPUS as the dependent variable and ADAPOC (perceived adaptation to the old school setting), ACADC (academic standing in the old school), and AGE as independent variables, the first multiple regression equation was computed:

$$ADAPUS = B_0 + B_1 ADAPOC + B_2 ACADC + B_3 AGE + e_1 \quad (I)$$

The computed equation, by means of a SPSS program, and other results are presented in Table 4.18.

Table 4.18. Multiple regression I

Analysis of variance						
Source	df	Sum of squares	Mean square	F		
Regression	3	10.2886	3.4295	16.3042**		
Residual	92	19.3519	0.2104			

Predictor	r	R	R ²	B	Beta	F
ADAPOC	.5418	.5418	.2936	.35976	.37505	6.810*
ACADC	.5238	.5612	.3149	.17222	.19201	1.747
AGE	-.2371	.5892	.3471	-.05993	-.18276	4.535*
(Constant)				2.3779		

*Significant at .05 level.

**Significant at .01 level.

The predicted equation is:

$$\widehat{ADAPUS} = 2.3779 + .3598 \text{ ADAPOC} + .1722 \text{ ACADC} - .0599 \text{ AGE}$$

and in standardized form:

$$\widehat{ADAPUS}^* = .3750 \text{ ADAPOC}^* + .1920 \text{ ACADC}^* - .1827 \text{ AGE}^*$$

The variance of perceived adaptation to the new school setting (ADAPUS) accounted for by perceived adaptation to the old school setting (ADAPOC), academic standing in the old school (ACADC), and age is about 35%.

With ACADS (academic standing in the new school setting) as dependent variable and ADAPOC, ACADC, AGE, and ADAPUS as independent variables, a series of other multiple regression equations were computed. These equations were of the form:

$$ACADS = B_0 + B_1 ADAPOC + B_2 ACADC + B_3 AGE + e_2 \quad (II.A)$$

$$ACADS = B_0 + B_1 ADAPOC + B_2 ACADC + B_3 AGE + B_4 ADAPUS + e_3 \quad (II.B)$$

The analysis of variance and the results of these multiple regression equations are presented in Table 4.19 and Table 4.20, respectively.

Table 4.19. Multiple regression II.A

Analysis of variance						
Source	df	Sum of squares	Mean square	F		
Regression	3	11.00721	3.66907	8.09631**		
Residual	92	41.69238	0.45318			

Predictor	r	R	R ²	B	Beta	F
ADAPOC	.2747	.2747	.0755	-.1003	-.0784	0.246
ACADC	.3918	.3982	.1586	.5012	.4191	6.869*
AGE	-.2897	.4570	.2089	-.0999	-.2285	5.851*
(Constant)				3.7210		

*Significant at .05 level.

**Significant at .01 level.

The prediction equation is:

$$\widehat{ACADS} = 3.721 - .1003 ADAPOC + .5012 ACADC - .0999 AGE \quad (II.A)$$

and in standardized form:

$$\widehat{ACADS}^* = -.0784 ADAPOC^* + .4191 ACADC^* - .2285 AGE^*$$

The variance of ACADS accounted for by ADAPOC, ACADC, and AGE is only 21%.

Table 4.20. Multiple regression II.B

Analysis of variance						
Source	df	Sum of squares	Mean square	F		
Regression	4	19.45696	4.86424	13.31561**		
Residual	91	33.24263	0.36530			

Predictor	r	R	R ²	B	Beta	F
ADAPOC	.2747	.2747	.0755	-.3380	-.2643	3.223
ACADC	.3918	.3982	.1586	.3874	.3239	4.996*
AGE	-.2897	.4570	.2088	-.0603	-.1380	2.521
ADAPUS	.5548	.6076	.3692	.6608	.4956	23.131**
(Constant)				2.1497		

*Significant at .05 level.

**Significant at .01 level.

The prediction equation is:

$$\widehat{ACADS} = 2.1497 - .3380 ADAPOC + .3874 ACADC - .0603 AGE + .6608 ADAPUS \quad (II.B)$$

and in standardized form:

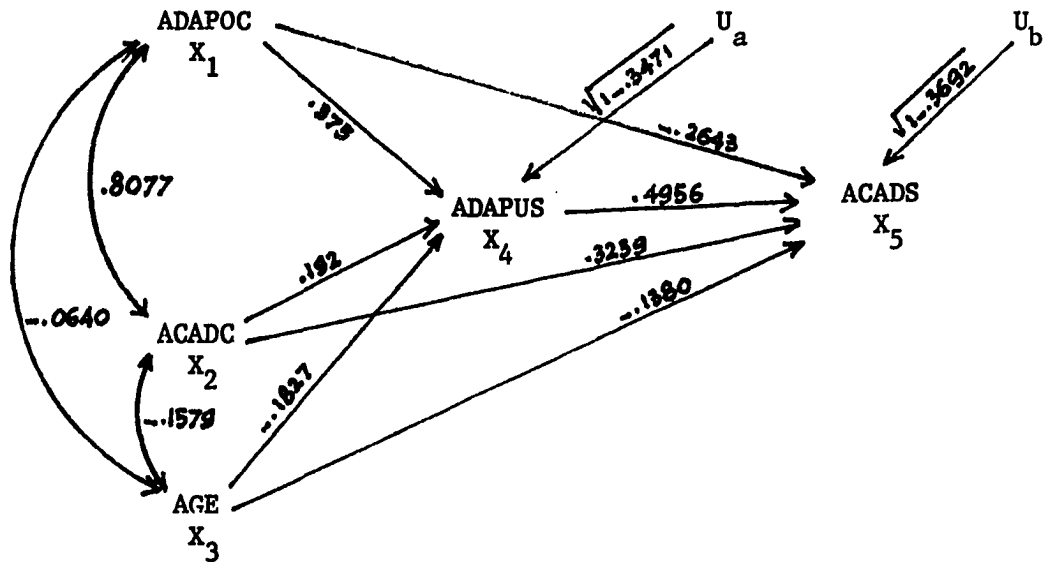
$$\widehat{ACADS}^* = -.2643 ADAPOC^* + .3239 ACADC^* - .1380 AGE^* + .4956 ADAPUS^*$$

All these independent variables account for 37% of the variance of academic standing in the new school.

From the multiple regression analysis, it can be said that perceived adaptation to the old school setting, academic standing in the old school, and age are predictors of perceived adaptation to the new school setting. All together they account for 35% of the variance of the dependent variable, that is, the better adapted to the old school setting, the higher the academic standing in the old school, and the younger the students, the more successful the adaptation to the new school setting. Academic standing in the new school, on the other hand, has four predictors: perceived adaptation to the old school setting, academic standing in the old school, age, and perceived adaptation to the new school setting. All together these predictors account for 37% of the variance of academic standing in the new school.

Path analysis

Multiple regression analysis also suggests the path model that can be used to explain the patterns of relationships among variables. This model can be depicted in the following diagram:



Based on the results of the multiple regression equations I, II.A, and II.B previously presented, the path coefficients can be determined, using the standardized regression coefficients (Beta) in these equations. For the path model above presented, the recursive equations can be written:

$$(Eq. 1) \quad x_4^* = .3750 x_1^* + .1920 x_2^* - .1827 x_3^*$$

$$R^2 = .3471$$

$$(Eq. 2) \quad x_5^* = -.2643 x_1^* + .3239 x_2^* - .1380 x_3^* + .4956 x_4^*$$

$$R^2 = .3692$$

The assessment of the direct and indirect effects of the independent variables on the dependent variables is presented in Table 4.21.

The revised multiple regression equations are presented in Appendix C.

Table 4.21. Direct and indirect effects of independent variables on ADAPUS (x_4) and ACADS (x_5)

Predetermined variable	Eq. I x_4	Eq. II.A x_5	Eq. II.b x_5
x_1	.3750	-.0784	-.2643
x_2	.1920	.4191	.3239
x_3	-.1827	-.2285	-.1380
x_4			.4956

Dependent variable	Predetermined variable	Total effect	Indirect effect via x_4	Direct effect
x_4	x_1	.3750		.3750
	x_2	.1920		.1920
	x_3	-.1827		-.1827
x_5	x_1	-.0784	.1859	-.2643
	x_2	.4191	.0952	.3239
	x_3	-.2285	-.0905	-.1380
	x_4	.4956		.4956

Discussion

There are some points in the findings that need to be discussed more thoroughly. With regard to the factors that can contribute to the perceived adaptation to the new school setting and to the academic standing in the new school of the Indochinese refugee students, three have been mentioned in this study, namely perceived adaptation to the old school setting, academic standing in the old school, and age. There are some other factors that might significantly contribute to the variance of these dependent

variables. Such factors have been identified and assessed by many social scientists and educators. They are: (1) socio-economic status, (2) race, and (3) intelligence (or aptitude, or ability).

The first, socio-economic status, is not included in this study because a question about socio-economic status of an Indochinese refugee at this time seems to be very frustrating for him. He has lost everything when he left his homeland. In his new life he entered the bottom of the host society, depressed and frustrated. Thus, in this period of readjustment such a question is not appropriate. Garkovich (1977), studying the Indochinese refugees in the United States, found that many of them said that they wanted to return to their native country. This is not truly so, but it reflects the psychology of the refugees which consists mostly of depression, nostalgia, frustration, etc., during a certain period of readjustment.

The second factor, ethnic group, has no effect on the perceived adaptation to the new school setting but does contribute to the academic standing in the new school as seen earlier. Explanations of the difference between the two ethnic groups (Thaidam and Vietnamese) in terms of academic standing also have been given. It was argued that this difference is due to the difference of educational background of these students rather than ethnic standing per se. Because ethnic membership reflects the educational background of the students, it is not included as a determining variable in this study.

The third factor, intelligence (or aptitude), has caused much controversies among psychologists and educators, especially when it is used to explain the academic achievement of socially and culturally disadvantaged

children. There is no culture-free intelligence test (Bhatnagar, 1970). Thus, instead of an intelligence test, one can use previous achievement to indicate aptitude or ability. In this sense ACADC (or academic standing in the native school) can serve as previous achievement and thereby as aptitude.

Indeed academic standing in the native school is one of the three factors that remain as predictors of perceived adaptation to the new school setting and of academic standing in the new school in the previous multiple regression equations and in the proposed path model. The other two are perceived adaptation to the old school setting and age. Age reflects the time (or the length) of socialization to the native country. For the older students, the socialization to the native country has much more involved than for the younger ones. Thus, for them, the processes of desocialization (from the sending culture) and resocialization (to the host culture) take more time than for the younger children. Perceived adaptation to the old school setting can be seen as a personality trait (a personal attribute) in this study. It reflects a personal attribute that helps the individual to adjust to a certain kind of society or subsociety such as the academic subsociety or the school. Thus, those who rate themselves high on that scale also see themselves as more adapted to the new school setting than those who do not. In sum, the three determining factors that are retained in this study are perceived adaptation to the old school setting (seen as a personal attribute), academic standing in the old school (seen as aptitude or ability to learn), and age (seen as the length of socialization to the native culture). The first two factors correlate positively with perceived adaptation to the new school setting and academic standing

in the new school while the last factor varies inversely with these two dependent variables. All the three determining factors affect perceived adaptation to the new school setting which, in turn, influences academic standing in the new school. This explains the path model previously presented.

With regard to the differentiation between culture-linked and nonculture-linked school subjects, there must be some more comments. Five school subjects have been used in this study: English, mathematics, science, social studies, and humanities. English and social studies are obviously culture-linked, while mathematics is nonculture-linked. Science is commonly seen as universal and nonculture-bound. But if it is nonculture-bound like mathematics, why did the Indochinese refugee students in this study not perform as well in science as in mathematics? Referring to Table 4.13, it can be seen that academic standing mean score of these students in science is the lowest (3.4479) of all subjects, even lower than that in social studies (3.4792). A closer look at the problem reveals that science requires not only as much English as social studies but also demands remembering many technical terms (derived from Greek and Latin). Biology or geology, for example, demands much knowledge of scientific names, with which a non-English-speaking student is not familiar. Thus, for a foreign student it is not as easy to understand science (and scientific terms) as it is with the mathematical symbols. Science per se is not a culture-linked subject, but because it requires good command of English it becomes somehow culture-linked. Humanities vary in being culture-linked; art and music do not require extensive knowledge of English. All, however, reflect the cultural aspect of a particular society. Thus, the only

subject which can be considered as nonculture-linked in this study is mathematics. Indeed the mean score of academic standing of the Indochinese refugee students in mathematics is the highest (4.1875). They like mathematics (mean score = 4.4167) and perceive themselves as having the ability to learn mathematics more than any other subjects (mean score = 4.2500) (Table 4.13).

CHAPTER V. CONCLUSION

Implications

The findings of this study have several implications for education, especially the education of refugee adolescents.

1. The results of the study showed that the process of adaptation of the study group to the new school setting is not completed yet. If the primary purpose of education is to resocialize these refugee students into the host society, to help them become integrated into the new community, then special attention must be paid to their readjustment to the new school setting; successful readjustment can accelerate the process of acculturation which will improve academic performance. Time itself does not make a significant contribution to this process. Bhatnagar said, "Adjustment is a two way process, a give and take affair. Among other things, it involves acceptance of the social situation into which one is thrust, as well as acceptance of oneself by others in the community" (1970, p. 144). The most important factor that makes the readjustment of the refugee students successful is their perception of being accepted or liked by others in the new school setting. Thus, as long as the refugee student perceives that he is not accepted, his attitude toward the new school is negative. He may become apathetic and passive and have even less opportunity to interact with the people in the new host school. Without this necessary interaction, the process of acculturation in the new school context will not be successful. Richardson wrote:

"If the individual has a low level of frustration tolerance or if the actual stress of his current situation becomes too severe he is likely to react maladaptively either by the expression of aggression (physical or verbal) against his community or by passive withdrawal from the situation" (1967, p. 11).

On the contrary, if the newcomer perceives that he is accepted, liked by other people in the new school, his attitude toward that school will be positive, he will have more opportunities to interact with the host people, will learn rapidly the host language from this interaction, and will understand and internalize rapidly the host culture.

The perception of being accepted, though subjective, is mostly based on the present situation involving the attitudes and behaviors of other people in the new school. Thus, it is very important on the part of the new school to create a warm atmosphere, to establish special strategies to work with the refugee students, "to make this transition (readjustment) as gracious and efficient as humanly possible" (Presidential Documents, 1975, p. 22121). The first contact between the school and the refugee student must be made a pleasant experience; it must be made to feel that the refugee student is being accepted and liked by other people in the school. This encourages him to come closer to the host people and interact with them, a necessary condition for further acculturation.

2. The findings of this study also showed that the performance of the refugee students in mathematics is much better than that in any other subject. The reason is not because of their strong

background in mathematics or their endowment of mathematical skills but because of the fact that this subject does not require too much English and American culture background. Mathematics is a unique subject the refugee students can succeed in. This is not good for them in terms of acculturation, integration, and future social adjustment. The school must help them like and learn other subjects, too. To do this, special programs must be designed, appropriate materials (bilingual) must be developed, and special methods of teaching must be used.

There must be a cooperative effort of the American and Indo-chinese teachers and curriculum specialists to establish a special program of study which can reflect on one hand the native ability of the refugee students and, on the other hand, an introduction to the American standard curriculum. This special program should emphasize on social studies, science, and English more than on mathematics. We insist on a program that can reflect the native ability of the refugee students because it can give these students the opportunity to express their knowledge and acquire status in the eyes of their American classmates. This encourages them to accept the activities in class and helps them build their interests in these subjects.

Instructional materials must be appropriately developed. They must be geared to the special program of study and to the vocabulary level of the refugee students as well. Bilingual materials are preferred. We do not suggest a translation word by word of an American textbook into the refugee student's native language

or vice versa, but we insist on the explanations and illustrations of important American concepts and technical terms by means of the native language of the refugee students. The purpose here is to help these students understand these concepts and can use these technical terms in the future.

Related to the method of teaching, the utilization of the refugee student's background is suggested. This makes him feel at home and at ease with the subject, not suddenly put in a completely unfamiliar learning environment. Then gradually the teachers provide him with ideas and facts that can familiarize him with the new school setting and the host community. The teachers will find the way to stimulate his curiosity and his desire to learn in the areas above mentioned.

Suggestions for Future Research

1. The study group in this research is limited to the Thaidam and the Vietnamese in junior and senior high schools in Iowa. Except the Thaidam who were all resettled in Iowa, there are many other Vietnamese refugee students in secondary schools around the United States. Although almost all the Vietnamese refugee students in Iowa were involved in this study, the number ($N = 64$) is not representative of that population in the United States. On the other hand, the pattern of distribution of these refugee students varies greatly from the North to the South and from the East to the West. In general, the warmer the climate, the more Vietnamese refugee students. In the same latitude, the West is much preferred.

Thus, large concentrations of the Vietnamese refugee students can be found in California and Texas but not in the Midwest region. Since the size and the pattern of relocation of the group can affect the process of adaptation of these students, it is suggested that, in future research, two larger groups of Vietnamese refugee students will be used: the first group will consist of several hundred of those who live in a region of dispersed pattern of resettlement such as Iowa and some other states in the Midwest, and the second group will consist of other several hundred who live in an area where large concentration is found. The same measuring instrument and procedures will be used to collect data. The ethnic factor will be replaced by the structural effect of the relocation pattern. Since the sample is more representative for the entire population of the Vietnamese refugee students in the United States, the results of the study can be generalized to that population.

2. The questionnaire must be cross-validated by involving other ethnic groups besides the Indochinese. Such ethnic groups can be the immigrant students such as the Puerto Rican, the Mexican, the Iranian, etc. The same questionnaire and procedures will be used as before. With the same time spent in the United States, the relationship between perceived adaptation to the new academic setting and academic standing in the new school can be determined separately for each ethnic group. If the relationship is positive and highly significant for all the ethnic groups involved, then the measuring instrument can be seen as valid cross-culturally.

Using the analysis of variance techniques, with academic standing in the new school as dependent variable and perceived adaptation to the new school setting as covariate, one can find if there are significant differences among these ethnic groups. If there are significant differences, further analysis will help determine the causing factors.

3. In the present study, some causal inferences are arrived at by means of multiple regression and path analyses. A path model has been proposed to explain the pattern of relationships among variables. But the model must be tested in further research. The most appropriate procedure of testing this model is the longitudinal study on the process of adaptation of the new arrived refugee students in the future. The questionnaire must be translated into Vietnamese and Lao and administered to the new refugee students during their first school year in the United States, about three months before the final examinations in the school begin. Along with this questionnaire, a rating scale will be sent to the teachers who work with these refugee students to rate the student's social-personal adjustment and acculturation in the school context. Teachers' ratings and the scores in the questionnaire will be correlated to determine the relationship between the objective adaptation assessed by others and the perceived adaptation of the refugee students. The results of the final examinations constitute the academic standing of the students. Since perceived adaptation to the new school setting is assessed a certain period before the examinations, the causal inferences from

adaptation to academic standing can be made with confidence and accuracy. The same procedure will be repeated every year for a period of four or five years. From the second year on, the questionnaire can be in English like the one used in this study. The data analysis can be made separately for each year, but a comparison of the data for the whole period of study will be made in terms of social-personal adjustment, acculturation in the new school context, and academic standing in the new school to determine if there are significant changes during that period.

Summary

The purpose of this study was to determine the relationship between perceived adaptation to the new school setting and academic standing of the Indochinese refugee students in Iowa junior and senior high schools. The study group consisted of ninety-six (96) students identified and located in different secondary schools in Iowa. Sixty-four of them are Vietnamese and the rest are Thaidam. A specially developed questionnaire was sent. With ninety-six (96) observations, the coefficients alpha of different scales and subscales of the questionnaire range from .74 to .91. The subjects' responses to the questionnaire constitute the principal data for analytical procedures.

The results of the statistical analysis showed that the relationship between perceived adaptation to the new school setting and academic standing in the new school of these students is positive and highly significant. The hypothesis that those who perceive themselves as well-adapted to the new school setting have a higher academic status than those who do not is

fully supported by these results. Further analysis showed that both perceived adaptation to the new school setting and academic standing in the new school mean scores are significantly lower than those in the native school. This suggests that the process of adaptation of these students to the new academic setting is not completed yet. They still are in the transition stage that entails many difficulties which may set limits on their ability to learn and their academic performance in the host school.

Among the factors that can contribute significantly to the process of adaptation to the new school setting and consequently to the academic standing in the new school of these students, the following are identified and assessed by means of the multiple regression analysis: (1) perceived adaptation to the old school setting (seen as a personal attribute), (2) academic standing in the native school (seen as aptitude or ability to learn) and age (seen as the length of socialization to the native culture). The first two factors correlate positively while the last factor varies inversely with perceived adaptation to the new school setting and academic standing in the new school. A path model is proposed to explain the pattern of relationships among these variables. Because they still are in the transition stage, these students like and perform better the school subjects that are nonculture-linked such as mathematics than the school subjects that require considerable English and American culture background such as social studies. All these findings, on one hand, support fully the hypotheses formulated in this study, and, on the other hand, have some implications on the education of the refugee students in the host school. To improve the process of learning of these students in the host school to further the integration process, attention must be paid to their

readjustment to the new school. To help them develop their interest and ability to learn in the school subjects that are culture-linked, special programs of studies, bilingual materials of instruction, and special methods of teaching are needed. Lastly, for the purpose of further the generalization of the results, of cross-validation of the measuring instrument, and of determining the causal factors with confidence and accuracy, suggestions for future research have also been made.

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APPENDIX A.
QUESTIONNAIRE

Questionnaire on the Adaptation and Academic Standing of the
Indochinese Refugee Students in Iowa Secondary Schools

Dear Student,

You are chosen to participate in an important survey research conducted by the Research Institute for Studies in Education of the Iowa State University. It's up to you to decide to participate or not. If you are willing to participate to help us in this study, then please answer sincerely to the questions included in this questionnaire. There are no right or wrong answers. Your cooperation is highly appreciated.

NAME			
	(last)	(middle)	(first)
ADDRESS			
		Phone	

01. Age _____

02. Sex _____

03. Ethnic group (circle one of the following):

- a) Laotian b) Thaidam c) Vietnamese

04. School attended:

<u>School year</u>	<u>Name of the school</u>	<u>Grade</u>
1975-76		
1976-77		
1977-78		
1978-79		

05. What language do you usually use at home? (circle one of the following):

- a) your native language b) English c) both

06. Do you have any difficulty in studying in the American school? (circle one of the following):

- a) no difficulty b) some c) much

(Continued next page)

For each of the following questions there are 5 ways of answer:
5 is the highest, far above average
4 is above average
3 is average, or middle
2 is below average
1 is the lowest, far below average

Choose only one among these 5 ways of answer, and circle the number corresponding to the answer you have chosen. For example,

How much do you like French literature? 5 4 3 2 1

If your answer is very much, then circle 5 as shown above. If your answer is not at all, then circle 1, etc.

07. How much do you like

- a) your new life in the U.S.? 5 4 3 2 1
- b) the American way of life? 5 4 3 2 1
- c) the American school? 5 4 3 2 1
- d) your American teachers? 5 4 3 2 1
- e) your American friends? 5 4 3 2 1
- f) your American classmates? 5 4 3 2 1

08. How much do you think the following people like you?

- a) your American teachers 5 4 3 2 1
- b) your American friends 5 4 3 2 1
- c) your American classmates 5 4 3 2 1
- d) the American people 5 4 3 2 1

09. How much do you think you can understand

- a) English? 5 4 3 2 1
- b) your American teachers? 5 4 3 2 1
- c) the lessons in school? 5 4 3 2 1
- d) the American textbooks? 5 4 3 2 1

(Continued next page)

10. How well did you learn the following subjects in the American school?

a) English	5	4	3	2	1
b) Mathematics	5	4	3	2	1
c) Science	5	4	3	2	1
d) Social Studies	5	4	3	2	1
e) Humanities (Art, Music, Literature)	5	4	3	2	1

11. How much do you like the following subjects?

a) English	5	4	3	2	1
b) Mathematics	5	4	3	2	1
c) Science	5	4	3	2	1
d) Social Studies	5	4	3	2	1
e) Humanities (Art, Music, Literature)	5	4	3	2	1

12. What was your average grade in the last examinations in the following subjects? (5=A; 4=B; 3=C; 2=D; 1=F)

a) English	5	4	3	2	1
b) Mathematics	5	4	3	2	1
c) Science	5	4	3	2	1
d) Social Studies	5	4	3	2	1
e) Humanities (Art, Music, Literature)	5	4	3	2	1

13. How much do you like

a) your life in your native country?	5	4	3	2	1
b) your native way of life?	5	4	3	2	1
c) the school in your native country?	5	4	3	2	1
d) the teachers in your native country?	5	4	3	2	1
e) your friends in your native country?	5	4	3	2	1
f) your classmates in your native country? ...	5	4	3	2	1

14. How much do you think the following people in your native country liked you?

a) your teachers	5	4	3	2	1
b) your friends	5	4	3	2	1
c) your classmates	5	4	3	2	1
d) other people	5	4	3	2	1

15. When you were in school in your native country, how much could you understand?

a) your native language?	5	4	3	2	1
b) your teachers?	5	4	3	2	1
c) the lessons in the school?	5	4	3	2	1
d) the textbooks?	5	4	3	2	1

16. In your native country, how well did you learn the following subjects?

a) your native language	5	4	3	2	1
b) Mathematics	5	4	3	2	1
c) Science	5	4	3	2	1
d) Social Studies	5	4	3	2	1
e) Humanities (Art, Music, Literature)	5	4	3	2	1

17. When you were in school in your native country, how much did you like the following subjects?

a) your native language	5	4	3	2	1
b) Mathematics	5	4	3	2	1
c) Science	5	4	3	2	1
d) Social Studies	5	4	3	2	1
e) Humanities (Art, Music, Literature)	5	4	3	2	1

(Continued next page)

18. In your native country, what was your average grade in the following subjects?

a) your native language	5	4	3	2	1
b) Mathematics	5	4	3	2	1
c) Science	5	4	3	2	1
d) Social Studies	5	4	3	2	1
e) Humanities (Art, Music, Literature)	5	4	3	2	1

END

APPENDIX B.
CORRELATION MATRICES

Table B.1. Correlation matrix I

	SATS	BELIS	UNDES	SEVAS	LIKES	ACADS	SATC	BELIC	UNDEC	SEVAC	LIKEC	ACADC
SATS	--	.7585	.4180	.3261	.4609	.1762	.2064	.3677	.2269	.2716	.3355	.3179
BELIS		--	.5575	.3724	.3601	.1930	.3598	.3987	.3403	.4372	.4129	.4042
UNDES			--	.6932	.4448	.5625	.4433	.4700	.4586	.5339	.4225	.5084
SEVAS				--	.6008	.7952	.3506	.3561	.3719	.4073	.3443	.4316
LIKES					--	.5509	.2269	.3426	.2565	.2817	.3939	.3632
ACADS						--	.2084	.2091	.2553	.2893	.2120	.3918
SATC							--	.7347	.7053	.6749	.5226	.6605
BELIC								--	.6613	.6284	.5378	.6341
UNDEC									--	.7203	.5415	.6901
SEVAC										--	.7407	.8452
LIKEC											--	.7066
ACADC												--

Table B.2. Correlation matrix II

	ADJTS	ACCUS	ACADS	ADJOC	ACCOC	ACADC
ADJTS	--	.4887	.1973	.3865	.3708	.3874
ACCUS		--	.7365	.4736	.5195	.5112
ACADS			--	.2242	.2935	.3918
ADJOC				--	.7717	.6943
ACCOC					--	.8272
ACADC						--

Table B.3. Correlation matrix III

	ADAPUS	ACADS	ADAPOC	ACADC
ADAPUS	--	.5547	.5418	.5238
ACADS		--	.2747	.3918
ADAPOC			--	.8077
ACADC				--

APPENDIX C.

REVISED MULTIPLE REGRESSION EQUATIONS

Table C.1. Revised multiple regression I

Analysis of variance						
Source	df	Sum of squares	Mean square	F		
Regression	2	9.92105	4.96052	23.39457**		
Residual	93	19.71948	0.21204			

Predictor	r	R	R ²	B	Beta	F
AGE	-.23708	.23708	.05621	-.06665	-.20329	5.750*
ADAPOC	.54183	.57854	.33471	.50726	.52882	38.932**
(Constant)				2.56543		

*Significant at .05 level.

**Significant at .01 level.

The prediction equation I, after revision, becomes:

$$\widehat{\text{ADAPUS}} = 2.56543 - .06665 \text{ AGE} + .50726 \text{ ADAPOC}$$

in standardized form:

$$\widehat{\text{ADAPUS}}^* = -.20324 \text{ AGE}^* + .52882 \text{ ADAPOC}^*$$

AGE and ADAPOC (perceived adaptation to the old school setting) account for 34% of the variance of ADAPUS (perceived adaptation to the new school setting).

Table C.2. Revised multiple regression II.A

Analysis of variance						
Source	df	Sum of squares	Mean square	F		
Regression	2	10.89591	5.44795	12.11998**		
Residual	93	41.80368	0.44950			

Predictor	r	R	R ²	B	Beta	F
AGE	-.28968	.28968	.08391	-.10216	-.23363	6.240*
ACADC	.39183	.45470	.20676	.42448	.35494	14.402**
(Constant)				3.64469		

*Significant at .05 level.

**Significant at .01 level.

The prediction equation II.A, after revision, becomes:

$$\widehat{ACADS} = 3.64469 - .10216 AGE + .42448 ACADC$$

in standardized form:

$$ACADS^* = -.23363 AGE^* + .42448 ACADC^*$$

AGE and ACADC (academic standing in the old school) account for 21% of the variance of ACADS (academic standing in the new school).

Table C.3. Revised multiple regression II.B

Analysis of variance						
Source	df	Sum of squares	Mean square	F		
Regression	1	16.21788	16.21788	41.78754**		
Residual	94	36.48171	0.38810			

Predictor	r	R	R ²	B	Beta	F
ADAPUS	.55475	.55475	.30774	.73970	.55475	41.78754**
(Constant)				1.04455		

**Significant at .01 level.

The prediction equation II.B, after revision, becomes:

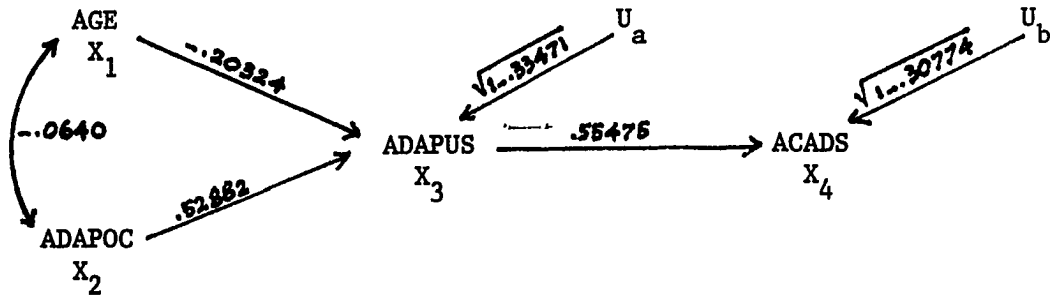
$$\widehat{ACADS} = 1.04455 + .73970 ADAPUS$$

in standardized form:

$$\widehat{ACADS}^* = .55475 ADAPUS^*$$

ADAPUS (perceived adaptation to the new school setting) accounts for about 31% of the variance of ACADS (academic standing in the new school).

The revised path model, after the revision of the multiple regression equations, is presented in the following diagram.



The recursive equations can be written:

$$\text{(Eq. 1)} \quad x_3^* = -.20324 x_1^* + .52882 x_2^*$$

$$\text{(Eq. 2)} \quad x_4^* = .55475 x_3^*$$