ABSTRACT

This study sought to determine whether changes in personality functioning occurred in teenagers participating in a one-month homestay in Japan. Subjects included exchange participants (N=154) and non-participant control group members (N=112) who were nominated by the exchange group. The California Psychological Inventory was administered to both groups prior to the exchange, once again at its conclusion, and a third time 4 months later. Results showed that the exchange group increased in flexibility and independence and became less conventional as compared to the control group. Exchange participants who were the first member of their immediate family to travel abroad and those who personally paid a high percentage of their trip expenses experienced the most personality change. Significant personality differences did not persist over time, although certain differences between exchange group antecedent subpopulations which were present at the time of the posttest persisted 4 months after the conclusion of the exchange. Other differences not apparent at the time of the posttest became discernible 4 months later. Certain personality changes associated with overseas experiences were immediately apparent while other changes became evident only after a period of time had passed. Some changes disappeared over time. (Author/ABL)
PERSONALITY CHANGES OF AMERICAN TEENAGE PARTICIPANTS IN A JAPANESE YOUTH EXCHANGE

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ABSTRACT

PERSONALITY CHANGES OF AMERICAN TEENAGE PARTICIPANTS IN A JAPANESE YOUTH EXCHANGE

Michael Henry Stitwsworth, Ed.D.
Indiana University, 1987

The purpose of this study was to determine whether changes in personality functioning occur in teenagers participating in a one-month homestay in Japan. The sample consisted of 154 exchange participants and 112 control group members who were nominated by the exchange group but who did not travel abroad. The California Psychological Inventory (CPI) was administered to both groups prior to the exchange, once again at its conclusion, and a third time four months later. A pre-exchange questionnaire was used to collect antecedent information from both groups.

Analysis of covariance was used to determine if the mean pretest and posttest scores for the exchange group and control group were significantly different. The Mann-Whitney U-test and Kruskal-Wallis ANOVA were used to determine if the personalities of certain overseas group antecedent subpopulations changed differently.

It was found that the overseas group increased in flexibility and independence and became less conventional as compared to the control group. Exchange participants who were the first member of their immediate family to travel abroad and those who personally paid a high percentage of their trip expenses experienced the most personality
change. Overseas travelers who had studied a foreign language for one or two semesters experienced no significant changes; travelers who had not previously studied a language and those who had studied a language for three or four semesters changed significantly.

Significant personality differences found between the exchange group and control group did not persist over time; however, certain differences between exchange group antecedent subpopulations which were present at the time of the posttest persisted four months after the conclusion of the exchange. Other differences not apparent at the time of the posttest became discernible four months later.

It was concluded that certain personality changes associated with overseas experiences are immediately apparent while other changes become evident only after a period of time has passed. Some changes which appear in the short term may disappear over time.

Approved and accepted by:

[Signatures]

Dr. William Wilkerson, Chairperson
Dr. Golam Mannan, Director
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Chapter I
Introduction

For centuries, people have traveled to faraway lands. But aside from explorers, early inhabitants rarely traveled further than the next town or village because they were limited by the pace of their own two feet, the speed of their horse or camel, and the swiftness of their vessel upon the water.

The advent of the sailing ship and airplane changed the course of history forever. Suddenly, in only a matter of hours, people could be transported distances which once took months or years to travel. People began to travel more than ever before, both for business and for pleasure. Increasingly, the general public began to see the educational benefits of travel, especially for post-secondary students. Programs offering foreign educational experiences for undergraduates began in 1923 with junior year abroad offerings of the University of Delaware and Marymount College (Marion, 1974a). But until the 1950s, the small number of college students who studied at foreign universities were mostly from affluent families, usually female, and often partially motivated by a desire to improve their ability in a foreign language (Burn, 1985).

Abrams noted in 1968, however, that "study abroad for Americans is no longer the province of the few--the well-to-do and the specialist--but it is coming to be an accepted instrument for the general education of the many" (p. 24). Partly as a result of economic prosperity and advances in transportation, the number of students partici-
International interchange increased dramatically (Gough & McCormack, 1967).

It was estimated that 50,000 U.S. students would study abroad in the 1984-85 school year. Of the number of students who study abroad each year, 85 to 90% travel to western Europe; two-thirds of the remaining students study in Mexico and Israel, leaving only a handful studying in other areas of the world (Burn, 1985).

Regardless of where their children study, the parents of today's students are more motivated and enthusiastic than ever about their children participating in international cultural and academic exchanges, both at the secondary and post-secondary levels (Dragonas, 1983).

Although international exchanges involving American secondary students overseas are fewer in number than those involving students of higher education, many high school students are traveling abroad. Accurate estimates, however, of the number of outbound secondary students are nearly non-existent.

Summer abroad programs for American high school students are widely available. Most high school students who travel outside of the U.S. do so as participants in short-term exchange or travel programs, usually of less than three months duration (Rhinesmith, 1980).

In 1980, Rhinesmith estimated that the non-profit sector sponsors 5,000-7,000 students abroad each year on short-term exchanges while private, profit-making organizations facilitate travel for many times that number of students. He cited the for-profit corporation American Institute of Foreign Study as sending 12,000 students abroad each
summer. But even these numbers do not reflect the thousands of students who travel overseas each year as participants in exchanges organized by high schools, often through language or history clubs.

In contrast to programs of short duration, in 1980 there were fewer than 2,000 secondary students studying abroad for a full academic year under the sponsorship of national organizations. This small number reflects the major investment of energy and resources required for organizations to support high school youth in year-long study abroad programs (Rhinesmith, 1980).

Although these figures suggest the quantity of high school students who participate in foreign exchanges each year, they provide no information regarding the quality of such efforts and the impact of exchanges on human development.

Human Development Theory

The concept of developmental stages is basic to understanding the overall functioning of human personality. There is general agreement among theorists that growth proceeds in sequential stages and that the tasks of each developmental stage must be successfully mastered if the individual is to advance without difficulty to the next stage. During each stage, development and change are brought about through interaction of persons and their environment (Conger, 1977; Perry, 1970; Piaget, 1969; Sanzord, 1966). During this interaction, the individual is assimilating new responses and behavior patterns unique from those of other stages. These new constructs facilitate progression through a given stage ultimately resulting in movement to the next stage of

The challenge-response theory (Piaget, 1969; Sanford, 1962) describes a process in which individuals progress developmentally by encountering concepts and situations which cannot be assimilated into the world view characteristic of the individual's present developmental stage. Responses learned in previous stages are not sufficient to meet the new challenges. Through conflict, the individual develops new responses which, if successful, result in progression through the present developmental stage. Development ceases in individuals who are unchallenged. Individuals presented with challenges which are too great will either ignore the challenge or retreat (Perry, 1970).

Encouraging Personal Development Through International Exchange

A celebrated Japanese proverb states, "Kawai koni wa tabi o sasero," which translates literally to mean, "Send your darling child on a journey of discovery." Saint Augustine declared that, "The world is a great book of which they who never stir from home read only a page."

These two maxims and others like them derive from a presumption that young people realize personal development from travel abroad. Personal development can be defined as the interdependent relationship of constructs such as attitudes, values, interpersonal skills, and/or maturity (Kauffmann, 1983). Morgan (1975) notes that:

The justification for studying abroad basically rests on the
premise that development occurs when individuals are challenged through culturally diverse experiences. One assumption made about study abroad is that transplanting students from one culture to another provides the culturally diverse experience (p. 214).

Rhinesmith (1980) enumerates five purposes of international interchange, the first category of which he broadly calls personal development. In this category, he lists development of cognitive skills such as learning about a country's culture, traditions, history, economic and social systems, language, and political life. He also notes from working with American Field Service (AFS) students that:

There is also an affective side to the personal development process that causes students to return to their own country with a greater sense of self-confidence, maturity, and understanding of their strengths and limitations than they had before they engaged in a foreign sojourn (p. 9).

Exchange-sponsoring institutions and organizations, and participants alike claim that international exchange and study abroad programs bring about personal development. Nash (1976) notes that students cite study abroad benefits which include personal growth, increased tolerance, improved self-understanding, greater openness or receptivity, greater independence, and increased sophistication.

Researchers have made numerous claims about the effects of foreign experiences on American students, particularly at the college level. Coelho (1962) claims that study abroad programs have tremen-
dous implications in terms of crystallization of the student's identity. Ingrid Eide (1970) suggests that, "Direct contact with a foreign people breaks down the stereotype of national character which occupied the mind of the visitor before he left home" (p. 20). Kelman and Pailyn (1962) concluded that "experience in a foreign country exposes an individual to a variety of influences that may challenge his existing attitudes and values. These experiences may lead to varying degrees of attitude change" (p. 319).

Dragonas (1983) claims that increased "cross-cultural understanding, the discovery of otherness and self, and the acquisition of new interpersonal relationships as one becomes integrated into another culture" are important goals of exchange programs (p. 5-6). She further states that exchanges which involve homestays—that is, living with a foreign family—are the best way to experience another culture because of the tremendous emotional and attitudinal impact of a homestay experience.

A presidential commission which convened in the late 70s to critique U.S. study abroad capabilities declared that "for students, whatever their field of interest, carefully planned experience abroad can have a lifelong impact on values and on concern for and understanding of other cultures" (President's Commission on Foreign Language and International Studies, 1979, p. 111).

Many optimistic statements have been made about the effects of travel abroad experiences, but attempts to measure these claims have produced ambiguous results. For example, studies reported by
Kauffmann (1983) and Hansel (1986) lend support to those who argue that significant personal changes result from overseas experiences; yet other researchers such as Hensley, Sell and Fishel (1978) conclude that such claims should be viewed with caution. Further ambiguity is created by conflicting reports as to whether changes, once identified and measured, persist over time.

Rhinesmith (1980) says that one of the difficulties of many exchange programs is that they do not focus on acquisition of knowledge, but rather on "development of self-confidence and new attitudes"—qualities which are difficult to measure (p. 10). Differences in assessment of outcomes may be due to differences in populations investigated, qualities of personality selected for study, periods of assessment, and, perhaps more importantly, differences in methodology (Nash, 1976).

Need for the Study

A number of subfields exist in the broader field of international interchange. These subfields include overseas research by American scholars and researchers, undergraduate study abroad, teacher exchange programs, non-academic cultural exchanges, and foreign student affairs—that is, foreign students studying in the United States.

The subfield which has dominated the research is foreign student affairs. Flack and Spaulding (1976), in their excellent review of the literature, reference more than 500 publications which appeared since 1965. Few studies, however, have examined how foreign study benefits American students (Marion, 1980). Even fewer studies have focused on
academic or cultural exchanges at the secondary level.

Unfortunately many of these studies which examine Americans abroad are responses to perceived operational or membership servicing needs of the sponsoring agencies and therefore are not necessarily of interest to other researchers or practitioners (Flack, 1980). Many exchange studies confine their interests to the administrative and physical realms of the exchange—for example, quality of accommodations, clarity of written materials, or accuracy of program information.

In its recommendations, the Presidential commission cited earlier suggested several reasons for the inadequacy of interchange research to date:

1. School and higher education personnel who administer exchanges often take on such responsibilities in addition to their regular duties and hence have difficulty finding time to accommodate program requirements, much less evaluation needs.
2. Many persons predisposed to become involved in exchange activities are unlikely to be qualified to conduct systematic assessment.
3. International interchange tends to recruit people-oriented persons, not those wont to measure, evaluate, and quantify its impact on people.
4. Because of the number of subfields in international interchange, the field in general does not tend to produce specialists on the entire field of exchanges; as a re-
sult, research is often fragmented (Burn, 1980).

A review of the literature also reveals a great deal of informal evaluation of international exchanges. Such informal educational evaluation is characterized by its dependence on casual observation, implicit goals, intuitive norms, and subjective judgment. As a result, informal evaluation is often superficial and distorted (Stake, 1967).

Prior to 1968, attitude changes associated with international experiences had seldom been verified empirically despite repeated claims by program administrators and participants (Kauffman, 1983). Kauffman also listed loosely structured experimental designs, infrequent use of follow-up studies, and lack of a theoretical base as recurring weaknesses. In 1968, Kafka called attention to the dilemma faced by researchers in choosing instruments to measure attitude change:

While seeking appropriate instrumentation in the vague field of attitude change the researcher has to choose between standardized tests which are of proven quality but have not yet detected change from cross-cultural exposure, or locally-devised tests in which the reliability and validity are questionable (p. 121).

In his review of the literature from 1968 to 1981, Kauffman (1983) noted that most studies reported during that time failed to correct the problems which characterized pre-1968 research.

Stake (1967) points out that, for education in general, little
attempt has been made to measure the match between what educators intend to do and what is indeed done—the same condition plagues many studies which purport to measure the consequences of international exchange.

Moreover, very little research has been done to determine what kinds of students are changed in what kinds of ways by international experiences (Marion, 1980; Nash, 1976). As Hayden (1981) pointed out, "An international exchange experience, it is argued, is a life-shaping event." However, "Just how one's life is shaped [by such experiences] at various stages of the educational process has not been the topic of much professional attention by the pertinent research community" (p. 8).

In 1981, a committee of the Council on International Educational Exchange (CIEE) developed a list of study abroad research needs which it then submitted to the CIEE membership for ranking in order of priorities. The item which was rated as the top priority was, "What is the impact of study abroad programs on changes in student attitudes toward self and other cultures?" (Vaughn, 1981, p. 6).

Of particular relevance to the present study is a 1985 report of the 4-H International Task Force which studied the purpose, status, and proposed directions of 4-H international programs. The report recommended studying the impact of 4-H exchanges on the "lives and attitudes of delegates, exchangees, host families, 4-H members, delegates' families, and [Cooperative] Extension staff..." (Task Force on 4-H International Programs, 1985, p. 16).

This study was designed not only to contribute to the general
body of knowledge about international interchange, but also to learn more about what kinds of students change in what kinds of ways with regard to personality, and to possibly aid in selection of travel abroad participants and in structuring future program elements. More broadly, this project may provide direction for restructuring the goals of this and similar exchange programs to the goals more consistent with what is actually being accomplished. Because of the number of diverse variables in the study, it was hoped that the results would stimulate additional research in the area of personality change associated with international exchange.

**Definition of Terms**

**Antecedent Variables** consist of certain demographic data and characteristics of the study group and control group participants at the time of the pretest.

**Transaction Variables** are certain circumstances, experiences, and situations encountered by the study group participants, and certain perceptions held by them during their homestays.

**Outcome Variables** are the changes in personality inventory scores of the study group and control group participants from the time of the pretest to the time of the posttest.

**Sustained Outcome Variables** are the changes in personality scores of the study group and control group participants from the time of the posttest to the time of the post-posttest.

**Personality** is defined as the configuration of characteristics and behavior that comprises an individual's unique adjustment to life,
including major traits, interests, drives, values, self-concept, abilities, and emotional patterns (Goldenson, 1984).

Personality Change refers to relative movement (positive or negative change) on a dimension(s) of personality as measured by the California Psychological Inventory (Gough, 1956).

Purpose of the Study

The purpose of this study was to determine whether changes in personality functioning occur in teenagers participating in one-month homestays abroad. Specifically, the study was designed to provide answers to the following questions:

1. How was the direction and degree of personality change (if any) in youth who participated in homestays abroad significantly different from members of the control group who stayed at home?

2. Which of these significant personality changes (if any) persisted four months later?

In attempting to answer these questions, the following null hypotheses were tested:

1. There is no significant difference in the directions and degrees of personality changes for the exchange group as compared to the control group.

2. No significant relationship exists among any of the antecedent variables and any of the outcome or sustained outcome variables for the exchange group.
Description of the Sample

Four-H is a non-formal, educational youth program of the Cooperative Extension Service which is part of the land-grant university in each state. The mission of 4-H is to assist youth from ages 9 to 19 in acquiring knowledge, developing life skills, and forming attitudes that will enable them to become self-directing, productive members of society (Joint USDA-NASULGC Committee, 1983).

Labo is a Japanese youth organization that offers an integrated program of language learning and cultural exploration which culminates in an overseas homestay program. "Labo" is not an acronym but rather derives from the word "laboratory" (Labo International Exchange Foundation, 1986).

Each summer approximately 150 adolescent 4-H club members from about 20 U.S. states travel to Japan for one-month homestays as part of the 4-H/Labo Exchange. About 1,200 Japanese Labo members travel to the U.S. each summer. This exchange between 4-H and Labo members began 15 years ago. Since that time over 16,000 Labo members and 4,000 4-H club members have participated in this non-academic homestay program.

This study focused on 154 teenage 4-H club members from 21 states who traveled to Japan during the summer of 1986. Appendix A lists the participating states. Permission to collect data from exchange participants was granted by the 4-H/Labo Exchange Standing Committee in February, 1986. This committee, which administers the overall exchange program, is comprised of representatives of the land-grant university Cooperative Extension Services in the participating states.
Each participant was asked to nominate a friend (not traveling abroad) to be in the peer control group. In making their nomination, participants were requested to choose a friend who was also enrolled in 4-H, who was the same sex and approximate age as the participant, and who had not previously hosted an international guest or traveled abroad. Of the potential control group members nominated, 112 persons agreed to participate in the study. The result was a comparison group comprised of individuals perceived as contemporaries by the overseas participants.

The 4-H members who traveled to Japan were between 11 and 20 years of age at the time of the pretest. Sixty-six percent of the participants were 14-16 years of age. Sixty percent were female; 40% were male. Seventy-nine percent of the 4-H exchangees had hosted an international guest in their home at least one time in the past.

While in Japan, the 4-H members each lived with one Labo host family for one month. The exchangees traveled to and from Japan in two large groups spaced two days apart. They attended a one-day orientation upon arrival in Tokyo and a one-day debriefing at the conclusion of their homestays.

Design of the Study

This study featured an adaptation of a design used by Marion (1974a) to study the attitude and value changes of undergraduates participating in a study abroad program at the University of Colorado. The study at hand essentially replicated Marion's design, but rather than focusing on undergraduates, it examined personality changes in
teenage cultural exchange participants.

One major design difference between the two studies is the desirable addition of a control group to the present study as called for by Marion in his recommendations for future research (Marion, 1974b). The other major difference is the addition of a post-posttest to Marion's pretest-posttest design.

Marion adopted a broad approach with a large number of diverse variables instead of an in-depth investigation of only a few variables. Rather than providing answers to a few major questions, Marion's study was intended to describe what kinds of students change in what kinds of ways, and to provide direction for future research.

Marion adapted Stake's Countenance Model (Stake, 1967) which elaborates on related work by Lee Cronbach (1963) and Michael Scriven (1967) to formalize evaluation into a systematic procedure. Stake discriminates between formal (objective) and informal (subjective) evaluation procedures and suggests that educators must abandon informal procedures in order to make rational judgments. He proposes that the two major activities of formal evaluation studies are description and judgment of the program being evaluated. Stake's model features two data matrices in which the evaluator lists the information necessary to rationally (1) describe and (2) judge a program (see figure 1). Stake suggests that the investigator look for contingencies and congruences within the cells of the two matrices in order to analyze the data collected. Since it includes the two most important components of program evaluation, Stake's model is useful as a mnemonic.
device to provide an organizational framework for planning an evaluation study (Stake, 1973).

Whether the evaluator is working in the area of description or judgment, Stake's model calls for three bodies of information to be collected: antecedent, transaction, and outcome data.

**Antecedent** data is any condition existing prior to a learning experience which may relate to outcomes—e.g., student aptitude, previous experience, interest, and willingness to learn. **Transactions** are the circumstances, experiences, and situations encountered by the learner during the learning experience. Transactions are dynamic as opposed to antecedents and outcomes which are relatively static. **Outcomes** are the consequences of educational experiences—whether immediate or long-range, cognitive or affective, personal or commun-
ity-wide (Stake, 1973).

Stake's model provides an appropriate framework for studying the impact of international activities. Inherently, study abroad programs and exchanges can provide all three of the required bodies of information.

Stake (1973) suggests that an evaluation study can be made more deliberate and appropriate by considering the answers to these five questions:

1. Will the study primarily be descriptive, primarily judgmental, or both?
2. Will the study emphasize the antecedent conditions, the transactions, or the outcomes alone, or a combination of these, or their functional contingencies?
3. Will the study indicate the congruence between what is intended and what occurs?
4. Is the study to be undertaken within a single program or as a comparison between two or more programs?
5. Is the study intended to further the development of a program or to choose among several available programs (p. 125)?

The present study, like Marion's, was primarily descriptive in nature and emphasized the functional contingencies of the antecedent conditions, transactions, and outcomes on the Description Matrix. Since congruence between what was intended and what actually occurred was not the focus of this study, data was collected only for the shaded cells in the Description Matrix shown in figure 2. Likewise,
since this study was descriptive and only undertaken within a single program, the Judgment Matrix was not used.

![Diagram of a matrix with sections labeled Antecedents, Observations, Standards, and Judgments.]

**Figure 2**

(Adapted from Stake, 1973, p. 113)

Marion's study abroad program evaluation employed an Antecedents Questionnaire which provided a priori experiential and demographic information. This information and the pretest scores on several attitudinal scales provided the antecedent variables. A Transactions Questionnaire provided information about experiences and situations encountered during residence abroad. This information furnished the transaction variables. The change in pretest and posttest scores on attitudinal scales provided the outcome variables.

In the present study, a Participant Information Questionnaire
(Appendix B) was developed to collect information from the exchange group and control group for the following antecedent variables: age; sex; place of residence; years enrolled in 4-H; number of older brothers/sisters; number of younger brothers/sisters; number of brothers/sisters living at home last school year; composition of family; race; religion; number of hours each week spent with friends; membership in clubs other than 4-H; previous international travel by members of immediate family; previous experience in hosting international guests; languages (other than English) spoken in the home; number of semesters of foreign language study; family income; perceived academic achievement; years of paternal and maternal education; and percent of exchange trip expenses paid by participant (not applicable to control group).

An Exchange Activities Questionnaire (Appendix C) was developed to collect information from the exchange group for the following transaction variables: whether participant lived with a Japanese host family whose son/daughter had previously been hosted by U.S. participant's family; age difference in years between participant and host brother/sister; and the number of children living in the Japanese home. In addition, participants responded to eight Likert-type items which provided information about: participants' perception of the overall homestay experience; perception of the Labo Camp experience; like/dislike of Japanese food; effect of not speaking Japanese on the homestay experience; Japanese language skills acquired; time spent with host brother/sister; perceived closeness to host family; and
perception of dissonance with host brother/sister. Control group members did not complete the Exchange Activities Questionnaire.

The first question on the Exchange Activities Questionnaire also provided information about the number of times (if any) that the exchange participant's family had previously hosted a Labo member. This information was used as an antecedent variable.

The California Psychological Inventory (CPI) was used as a pre-test, posttest, and post-posttest for both the exchange and the control groups. The pretest scores on the 18 CPI scales provided additional antecedent variables for the study. The change in personality inventory scores of the exchange group and control group participants from the time of the pretest to the time of the posttest provided the outcome variables. The change in personality scores of the exchange group and control group participants from the time of the pretest to the time of the post-posttest provided the sustained outcome variables. The post-posttest was administered to determine if changes in CPI scores between the pretest and posttest were sustained over time.

The CPI yields 18 scores: Dominance; Capacity for Status; Sociability; Social Presence; Self-acceptance; Sense of Well-being; Responsibility; Socialization; Self-control; Tolerance; Good Impression; Communalty; Achievement via Conformance; Achievement via Independence; Intellectual Efficiency; Psychological-mindedness; Flexibility; and Femininity.

In summary, the two questionnaires and the CPI scales were used to provide antecedent, transactional, outcome, and sustained outcome variables for the study. The antecedent variables were comprised of
information from the Participant Information Questionnaire, question (1) on the Exchange Activities Questionnaire, and the CPI pretest scores. The transactional variables were derived from questions (2) through (13) on the Exchange Activities Questionnaire. The outcome variables were the relative change of CPI scores from the time of the pretest to the time of the posttest. A post-posttest using the CPI was administered to determine if changes in personality scores (outcome variables) were sustained over time. The relative changes of CPI scores from the time of the pretest to the time of the post-posttest were the sustained outcome variables.

The antecedent and transaction variables were the independent variables in the study, while the outcome and sustained outcome variables were the dependent variables.

Description of Data Treatment

Analysis of covariance (ANCOVA), the Mann-Whitney U-test, and the Kruskal-Wallis one-way analysis of variance were used to measure the significance of the relationships among the antecedent and outcome variables and among the antecedent and sustained outcome variables.

ANCOVA statistically equated the participants as to CPI pretest differences so that the posttest and post-posttest scores reflected different amounts of change for each of the participants on the outcome and sustained outcome variables. ANCOVA was then used to determine if the mean scores for the exchange group and control group were significantly different.

The Mann-Whitney U-test is a powerful non-parametric statistic.
which was used to examine independent sub-populations of selected antecedent variables with two values (sub-populations) to determine whether the two independent groups were from the same population or significantly different with regard to personality change.

The Kruskal-Wallis one-way analysis of variance (ANOVA) is an equally powerful non-parametric test that is very similar to the Mann-Whitney U-test, except that the Kruskal-Wallis ANOVA was used to study independent sub-populations of selected antecedent variables with more than two values (sub-populations) to determine whether the independent groups were from the same population or significantly different.

Procedures

Four-H members who participated in the 4-H/Labo Exchange traveled to and from Japan in two large groups spaced two days apart.

Six weeks prior to departure a letter explaining the project was mailed to each exchange participant (see Appendix D). Each exchangee was asked to nominate a friend to serve in the peer control group by returning a nomination form developed for that purpose (see Appendix E). Follow-up mailings were sent to non-respondents.

One month prior to departure a pretest packet was mailed to each exchange participant and each control group member. The packet contained an explanatory cover letter (see Appendixes H and I), a copy of the Participant Information Questionnaire (see Appendix B), a CPI test booklet, a CPI answer sheet, and a postage-paid return envelope.

A follow-up postcard and eventually a new set of materials were
sent to non-respondents. Exchange group members who had not responded prior to arrival in Tokyo were asked to complete materials at that time.

During de-briefing in Tokyo (after four weeks in Japan and immediately prior to returning to the U.S.), each exchange participant responded a second time to the personality inventory (posttest) and completed the Exchange Activities Questionnaire (see Appendix C). At the same time, all control group members were mailed a packet containing a cover letter (see Appendix L), the CPI test booklet, and a CPI answer sheet to respond to a second time. A reminder postcard and, eventually, a new set of materials (see Appendixes M and N) were sent to non-respondents.

Four months following completion of the exchange both groups were mailed another set of CPI materials for completion (post-posttest) along with a cover letter (see Appendixes O, P, and Q). A reminder postcard, a reminder letter, and, eventually, a new set of materials were mailed to non-respondents in both groups (Appendixes R, S, T, and U). All data from the post-posttest had been collected by mid-January of 1987.

Assumptions

As already noted, there is a dearth of literature pertaining to secondary level cultural exchanges and study abroad programs. For that reason, in designing this study it was assumed that studies of such programs at the post-secondary level would also be generally applicable to research involving adolescent travelers.
Likewise, it was assumed that previous research focusing on the impact of academic exchanges on personality, attitudes, values and related areas were generally applicable to cultural exchanges such as the 4-H/Labo Exchange.

Using ANCOVA to determine significant relationships among the antecedent and outcome variables and among the antecedent and sustained outcome variables assumes independent samples from a normally distributed population with the same variance. The Mann-Whitney U-test and the Kruskal-Wallis ANOVA do not require these same assumptions about the underlying population distributions.

An assumption was made that the exchange participants would best be capable of identifying peers for a control group that would be demographically similar.

It was also assumed that the exchange and control group members approached participation in the research project, particularly completion of the CPI by mail, with a degree of earnestness which would contribute to the validity of the overall study.

Limitations/Delimitations

One of the strengths of this study was the homogeneity of both the exchange group and the exchange experience itself. Two-thirds of the participants were between 14 and 16 years of age; all participants were 4-H club members; all exchangees traveled to the same country to participate in single-family homestays for the same length of time. Fortunately, this research lacks many of the confounding variables which plague many similar studies. Therefore, the results of this
study can be generalized to similar cultural exchange programs involving teenage participants participating in homestays in a developed country.

However, this same homogeneity is also reason for caution in generalizing beyond similar kinds of programs. For instance, whether the results of this study can be applied to pre-teen or post-teen audiences, academic programs involving teenage youths, exchanges in developing countries, non-homestay based exchanges, or exchanges of shorter or longer duration is unknown.

Likewise, there is the question of whether any personality instrument is sensitive enough to adequately measure personality change associated with an international experience of only one month's duration. This concern must be taken into consideration in interpreting the results.
Chapter II
Related Literature

As discussed briefly in Chapter I, a review of the literature related to international interchange reveals that the attitude changes which program directors and participants enthusiastically attribute to overseas experiences have seldom been empirically verified.

Attesting to the lack of empirical studies is a review of research reported by Sell in 1983. Sell reviewed five studies based on one-time questioning of study abroad participants and fifteen studies reporting the results of analyses of pre and posttrip questionnaires. In her review, Sell laments that reported attitude change is not well-documented empirically, in part because of loosely structured experimental designs, infrequent follow-up studies, lack of an established theoretical base, and lack of consensus concerning what to measure. Sell suggests that future research should include examination of specific variables thought to facilitate attitude change and analysis of subgroups of students sharing common characteristics or abilities.

Despite problems such as those cited by Sell, previous researchers have produced a body of knowledge that provides answers to some of the questions related to overseas experiences. These answers, while generating even more questions, also provide direction for additional research in the field.

Chapter II presents a review of the literature and research concerning the relationship between international interchange and changes in personality, attitudes, and values. Relevant research will be
reported in the following order:

(1) Studies involving American post-secondary students
(2) Studies involving secondary students or adolescents
(3) Studies involving 4-H members
(4) Summary.

Studies Involving American Post-secondary Students

Among the most widely cited early research was a study by Smith (1955) who was one of the first researchers to study attitude change in study abroad students using a pretest/posttest design. His research involved 183 students who traveled to Europe in the summer of 1950 and a group of students who remained at home.

Smith found no change in worldmindedness, ethnocentrism, authoritarianism, political-economic conservatism, and belief in the democratic process. He did, however, find increases in the overseas group with regard to two indicators of internationally-oriented behavior—sending letters and gifts to Europe. Smith concluded that relatively brief exposure to another culture has only a limited impact on attitudes and that a student's attitudes after returning home are determined more by attitudes held prior to the overseas experience than by experiences encountered while abroad.

In a follow-up study conducted four and one-half years later, Smith (1957) found a significant decrease in worldmindedness and ethnocentrism in the students who traveled to Europe.

Hollins College students were the subjects of a study by McGuigan (1958) who surveyed a group of study abroad students to determine the
effects of intercultural experience on participants' personalities. A
group of students that remained on campus served as a control group.
After administering a broad battery of personality instruments,
McGuigan determined that, of the 24 psychological components measured,
only two changed significantly as a result of study abroad—the over-
seas group developed higher social values and acquired more submissive
social adjustment postures than students in the control group.
McGuigan concluded that personality change as a result of intercul-
tural experience is rare.

In 1959, McGuigan repeated the study, once again using a broad
battery of personality instruments. This time, he found a greater
number of significant differences between the experimental and control
groups. The overseas participants decreased in their ethnic distance,
became less independent, rated Americans less favorably as compared to
Europeans, and increased their appreciation and trust of foreign
people.

To determine the extent to which stated goals of a study abroad
program were being met, Leonard (1959) studied a group of 14 Adelphi
College seniors who traveled abroad. Besides using questionnaires of
his own design, Leonard administered the Allport-Vernon Study of
Values (Allport, 1931) and the Political-Economic Conservatism scales
(Adorno, 1950). Leonard also collected subjective data consisting of
statements made by students in their diaries, written evaluations,
progress reports, and other assignments.

Leonard discovered that students and faculty participants in the
program were in general agreement on program goals. In addition, he reported an increase in the liberalization of attitudes, a reduction in political-economic conservatism, and gains in self-perception. The lack of a control group requires that Leonard's findings be viewed with caution.

Pace (1959) undertook a study of 1,000 alumni of University of Delaware-Sweet Briar College junior year in France program. Pace used a questionnaire with six subscales to measure opinions and attitudes. He supplemented his questionnaire with data gathered by interviewing French host family members and professors of the American students.

He found that, compared to a non-traveling control group, the alumni were: (1) personally more tolerant in accepting people who differed from themselves; (2) more aware of significant intercultural contributions to life in the twentieth century; (3) more frequent and active participants in internationally-related activities; and (4) more inclined to endorse policies which promote the freer exchange of ideas, goods, and people among countries.

In her 1964 doctoral dissertation, Emily Girault surveyed students who spent six months studying at the Stanford University Center in Germany. Data on attitude changes were collected in the following categories: students' views of Americans and Germans; stereotypic thinking; awareness of public affairs; perception of purpose in study abroad; perception of changes in themselves; and reference group identification. Girault interviewed the students in three groups: those about to depart for Germany; those recently returned; and those who had been back in the U.S. for eighteen months.
Girault reported that the students who had studied abroad were more sensitive to international problems and that overseas experience tends to reduce stereotypic thinking.

Kafka (1968) examined the effects of a summer study abroad program at Justin Morrill College (Michigan State University) on world-mindedness. Sampson and Smith's Worldmindedness Scale (1957), the Rokeach Dogmatism Scale (1960), the Differential Values Inventory, and a demographic questionnaire were administered in a pretest/posttest design to 81 overseas travelers and a group of 127 students who did not travel abroad.

Kafka reported that no variable was related to changes in world-mindedness and that increases in worldmindedness by the study abroad group were not large enough to be statistically significant. He questioned whether the Worldmindedness Scale was sensitive enough to detect attitude change during a brief sojourn abroad.

Herman (1970) studied attitude change in 87 American Jewish students who spent an academic year studying at Hebrew University in Israel. Data were collected before, during, and after the experience, as well as one year later using questionnaires, interviews, observations, diaries, essays, and letters.

Herman determined that students increased in the strength of their feelings of being Americans and that there was a significant decline in the students' view of similarity among Jews in culture, customs, behavioral characteristics, and appearance. Herman's findings supported Smith's (1955) contention that pre-experience attitudes
are strong predictors of post-experience attitudes.

Participants in Kalamazoo College's foreign study programs in Africa, France, Germany, and Spain during three academic terms in the late 1960s were the subjects of doctoral research by Smith (1970). The study used consistency theory as a framework to investigate the effects of program structural characteristics and student trait-experience program characteristics (e.g., breadth of exposure to non-Americans, presence of an American subculture, course differences, and satisfaction with the program) upon the attitudes, values, and interests of program participants.

Smith gathered data using the College Entrance Examination Board's foreign language reading and listening test and the Allport-Vernon-Lindzey Study of Values scales (1960). Smith reported that breadth of exposure to non-Americans and presence of an American subculture were the two program characteristics most significantly related to producing change in student attitudes, values, and interests. He also found that students who interacted with Americans and non-Americans alike experienced the most change during study abroad. With regard to program structure, the most changes were found in students who lived with host families and who received instruction in English (or a mixture of English and the host language) rather than just in the host language.

In a study of the Goshen College Study-Service Trimester program, Allan Pfnister (1972) examined the program's impact on 120 students who spent 14-weeks overseas in various locations. Two control groups were used: one which studied abroad for a six month period and another
which remained on the Goshen campus. Pfnister used attitude scales and opinion inventories along with interviews to collect data for the study. He reported significant increases on 11 of 16 items grouped into four categories measuring human relations, critical thinking, humanistic values, and vocational orientation.

Bower (1973) studied attitudinal change among 12 American college juniors and seniors who spent 14 weeks in Alexandria, Egypt participating in a Tarkio College (Missouri) study abroad program. He also focused on the correlation of attitude change with personal and case data. Bower used two instruments developed by O.J. Harvey, This I Believe and Conceptual Systems Test, to measure change related to 11 dimensions and factors: openness; candor; externality; evaluativeness; optimism; cynicism; simplicity/complexity; divine fate control; need for structure and order; interpersonal aggression; and anomie.

Bower correlated attitude changes with data from several sources: documentation of the nature of the intercultural experience common to all participants; documentation of the nature of the intercultural experience unique to each subject; subjects' perceptions of overseas experiences; and demographic data. Data regarding perceptions were gathered using applicative statements, activity resources and interviews, and test scores from the Roach Personal Opinion Questionnaire and the Allport-Vernon-Lindzey Profile of Values.

Bower concluded that the amount of positive change compared to negative change and no change was so small as to challenge many of the assumptions of study abroad which argue that openness, flexibility,
and sensitivity to change are fostered by study abroad programs. Bowers' results must be viewed with caution because of small sample size and lack of a control group.

Syracuse University juniors participating in two study abroad programs centered in Amsterdam and London comprised the sample for a 1973 study conducted by Yin to examine attitude change in study abroad students. The experimental group was matched to a non-traveling control group by sex, year, major, Stern's Activities Index Need Components, verbal SAT scores, and GPA. Yin gathered attitude data using four subsections of the Omnibus Personality Inventory (OPI) (Autonomy, Complexity, Altruism and Estheticism), Sampson's Worldmindedness Scale, the Internationalism Scale, anecdotal reports, and taped debriefing sessions.

Yin failed to find significant differences between the experimental and control groups on the subsections of the OPI; however significant differences were reported on the Worldmindedness Scale and Internationalism Scale in comparing the Amsterdam group with the control group. Yin reported that analyses of diaries and taped discussions showed that the overseas experience did affect a wide spectrum of social, economic, political, cultural, environmental, and religious attitudes.

Yin concluded that the consequences of study abroad as revealed by formal instruments are disappointing; yet content analysis of anecdotal reports suggest otherwise, even though many of the reports were contradictory within and among individuals. Yin noted that the consequences she derived from anecdotal information should be regarded
as hypotheses rather than conclusions.

Davies (1974) endeavored to identify variables within the background of study abroad students and within their study abroad experience which might relate to the student's perception of whether his/her study abroad experience was positive or negative. The data were collected using the 13 experimental categories found on the first two revisions of the Individual Opinion Inventory (Form A); pre and post-test scores on the SAT Foreign Language Listening and Reading Examination; SAT mathematics and verbal scores; sex; parental occupation; length of stay abroad; major; extent of previous travel; and years of high school foreign language study. Davies established the criteria of positive and negative study abroad experience according to the subjects' responses on selected items of the Individual Opinion Inventory.

Davies determined that: (1) students who felt less favorable toward their home institution were more positive about their study abroad experience; (2) students who were more actively involved in their own learning perceived their study abroad experience as more positive; (3) students with greater cultural appreciation were more positive about study abroad; and (4) students who had the greatest increase in personal development perceived their overseas experience as the most positive.

The design which Marion (1974a) used in his doctoral research was discussed in detail in Chapter I. In his study, Marion used an Antecedent Questionnaire (demographic information), a Transactions Ques-
tionnaire (experiences in Europe) and pretest and posttest scores on attitudinal scales to examine attitude change in 90 juniors at the University of Colorado who studied in England, France, Germany, and Italy in 1972-73.

In general, Marion ascertained that students who had only a poor to fair foreign language ability, a non-social orientation as to interests, fewer foreign and more American friends, and who visited fewer foreign countries during the program became more conservative, more nationalistic, more negative toward their host country, and more positive toward the United States. The same was true of students who studied in France or Italy and who were more conservative and nationalistic on the attitudinal pretests. Marion found that the opposite types of students changed in the opposite ways. He concluded that "the study abroad experience may reinforce rather than change attitudes" (p. 13). Marion's study suffered from the lack of a control group.

In 1974, Murphy reported on his study of a group of 57 Indiana University students who participated in an overseas study program. A group of 24 non-overseas study students at Indiana served as a comparison group. Murphy investigated selected aspects of study abroad including the effects of satisfaction with the program and site of the program on worldmindedness. Locus of control was used as a personality variable for purposes of studying personality differences and worldmindedness.

Murphy discovered significantly different mean scores on worldmindedness between the experimental and control groups but no signifi-
cant differences on worldmindedness between internally and externally oriented study abroad students. Murphy concluded that neither satisfaction with the program nor the site of the program appeared to affect worldmindedness scores.

James (1976) used interviews to collect information about the impact of study abroad on the attitudes of U.S. students studying in France during the winter of 1972-73. The Omnibus Personality Inventory (OPI) provided descriptive background data. A follow-up questionnaire one year later permitted students to report changes or to elaborate on developments. James reported that over 90% of the students responded positively regarding the value of their study abroad experience. He found that the greatest gains came in changes in self-confidence, self-esteem, appreciation of capabilities and worth, improved interpersonal skills, and understanding of the strengths and weaknesses of American culture.

In 1976 Nash used a longitudinal design to study the effects of a year abroad in France on the self-realization of a group of University of Connecticut juniors. Nash's sample was initially composed of 41 study abroad students; 32 French language majors comprised the control group. Nash administered questionnaires to the two groups throughout the year, but there was considerable sample attrition by the fifth administration of the questionnaire which occurred almost a year after the first. At that time only 16 members of the overseas group and 24 control group members remained in the study.

Despite Nash's sample attrition and his use of non-validated
questionnaires, it is significant that he discovered evidence of increased autonomy, an expansion or differentiation of self, and a greater interest in international affairs in the overseas group based on differences between the first and fourth questionnaires. These increases, however, did not persist when the fifth questionnaire was administered three months after the program's conclusion.

Approximately 1,500 Antioch College students traveled abroad in the 1960s as participants in Antioch's education abroad program. Abrams (1978) sent a 13-page questionnaire to 670 of these students to examine program benefits. A total of 500 questionnaires was returned, 330 of which proved usable for analysis. Abrams sent applicable parts of the questionnaire to 200 comparable students who were at Antioch in the 1960s. Ninety-four usable responses were received.

Abrams concluded that the more a student was immersed in the culture, the more satisfaction and impact were realized by the student. Twelve years after the experience, 79% of the alumni responded with positive feelings about the program. Abrams also found that a high percentage of alumni completed undergraduate degrees, attended graduate school, earned doctorates, and became involved in international activities.

Hensley, Sell and Fishel (1978) examined the question of whether the attitudes of 52 student participants in Kent State University's 1977 Geneva Semester Program would change with regard to worldmindedness, support for the United Nations, self-esteem, and tolerance of ambiguity as a result of study abroad. Responses of the overseas group were compared with responses of 17 students in a class on inter-
national organization at Kent State. With the exception of self-esteem, the researchers found no evidence of significant attitude change.

The same study addressed whether attitude change would be significantly related to two key independent variables—closeness of contact with non-Americans and overall enjoyment of the overseas experience. Multiple regression analysis provided strong evidence that both variables helped to account for attitude change in tolerance of ambiguity—a trait which actually decreased as a result of the program. Closeness of contact with non-Americans was determined to be related to increases in self-esteem.

These results are not consistent with the generalization of effect or halo theory proposed by Salter and Teger (1975) who contend that enjoyment of the overseas experience is the key to positive attitudinal change. Hensley, Sell and Fishel found strong support for Smith's (1955) contention that what an individual's attitudes will be after study abroad is determined more by a priori attitudes than by experiences encountered while away from home. The major conclusion of the study was that brief experience abroad has a limited impact on attitudes.

Klineberg and Hull drew similar conclusions about the effects of study abroad on attitudes. In 1979, they studied attitudinal change in a project which involved foreign students in eleven countries. Their research suggested that study abroad has little effect on attitudes toward host nationals. Since American students abroad expressed
frustration in making contact with the local population, Klineberg and Hall speculated that this inability to develop contacts contributed to a slight decline in attitudes toward host nationals on the part of the American students studying abroad.

In one of the few studies involving community college study abroad programs, Eaker (1980) evaluated the effects of a six-week study program on attitudes of worldmindedness. She also examined the relationship between worldmindedness and participant satisfaction with the program. Her sample included 19 students who studied overseas and 34 control group members who were enrolled in beginning French and American literature courses on the home campus. Eaker administered the Sampson and Smith (1957) Worldmindedness Scale in a pretest/post-test design along with two questionnaires she developed to evaluate satisfaction with the program and perceptions developed overseas.

Eaker reported no significant difference between the experimental and control groups with regard to worldmindedness. She did, however, find that a subgroup of overseas students that was classified as anti-worldminded on the pretest scored significantly higher on the post-test. She also reported that previous travel by the program participant was the variable influencing a large portion of attitudes of worldmindedness. There was a very low correlation between satisfaction with the program and worldmindedness. Eaker attributed the lack of difference between the experimental and control groups to the short duration of the stay abroad.

A second study involving community college students was reported by Gwynne in 1981. In her doctoral research, Gwynne focused on the
relationship between a semester's study abroad and attitudes of world-
mindedness and tolerance. Only 55 of 274 overseas program participants at Rockland Community College responded to pre and posttests. These 55 students comprised the experimental group. This low rate of return (20 percent) dictates that Gwynne's findings be viewed with caution. The control group consisted of 100 Rockland students who did not travel abroad. Gwynne collected demographic information and administered the Worldmindedness Scale and the Social Distance Scale to both groups in a pretest/posttest design.

A significant increase in worldmindedness was discovered in the overseas group but there was no significant difference in tolerance. None of the demographic variables was found to be a predictor of either attitude.

Pyle (1981) used the Student Development Task Inventory (SDTI) to study college students who participated in an overseas service-learning experience. Compared to the control group, Pyle determined that the overseas group's scores were significantly different on the total inventory. Significant differences were also found on the Autonomy, Mature Lifestyle, and Interdependence subtests. The control group mean scores were not significantly different for any of the 13 variables in the study. Subjective comments from the participants were congruent with the statistical findings.

Deborah Sell and Richard Craig (1982) used Q-sort methodology to identify different types of attitude change in different types of individuals. They reported that most students undergo a profound
change in attitudes toward host nationals, but that individuals with
different a priori attitudes change their views in different ways.
Sell and Craig also contend that even an orientation course alone can
dramatically alter student attitudes; for some students, a semester-
long orientation course affected attitudes more than a semester
abroad.

Participants in the Goshen College Study-Service Trimester (SST)
program were the subjects of research by Kauffmann (1983) to determine
the relationship between selected aspects of personal development and
the study abroad experience. Almost all students at Goshen, which is
affiliated with the Mennonite religion, spend a trimester in Honduras,
Belize, Costa Rica, China, or Haiti. Kauffmann administered the
Omnibus Personality Inventory (OPI) to students immediately prior to
commencement of the SST program, again at its conclusion, and a final
time one year later. He also used a series of structured interviews
to determine personal impact of the experience. Eighty-one students
at comparable Mennonite-affiliated colleges served as a control group.

Kauffmann ascertained that SST students showed a greater increase
in self-esteem, independence, interest in reflective thought, and
interest in the welfare of others. Increases in participants' interest
in reflective thought persisted one year later. To a great degree,
Kauffmann based his findings on interview results since changes
indicated by the OPI were usually generally less than the changes
self-perceived by the participants. In a follow-up paper, Kauffmann
and Kuh (1984) speculated that the debriefing interview which was used
to estimate development also encouraged further development. Such
speculation is consistent with what Sanford (1962) suggested two decades earlier.

A study conducted by Bennett (1985) investigated an intercultural communication training program involving 181 college students enrolled in study abroad programs in France, England, or Germany. After participating in the two-day program which was conducted during their stay abroad, each student responded to a questionnaire about study abroad goals, a post-program evaluation survey, and an instrument designed to assess cultural self-awareness.

Bennett found that the program administrators and students exhibited a high degree of consensus on six goals for study abroad and that cultural self-awareness improved significantly as a result of the two-day workshop.

Studies Involving Secondary Students or Adolescents

Secondary school students have been the subjects of numerous studies involving travel abroad, but not nearly to the extent of their college age counterparts. The literature regarding high school youth is particularly important to the current study since several researchers, when comparing high school travel and college foreign study experiences, maintain that high school students abroad have a greater opportunity to acquire new perspectives and question personal values than do college students who are concentrating on academic programs (Rhinesmith, 1980; Wattenmaker, 1979; Hoeh and Spuck, 1975).

Hofman and Zak (1969) reported on their study of the relationships between attitudinal change and the amount of interpersonal
contact of overseas travelers with host nationals. The researchers administered pre and postquestionnaires concerning attitudes towards the Jewish religion and Israel to 90 American and Canadian boys and girls ages 14 to 18 who spent a summer in an Israeli camp. Closeness of contact was measured at two different times by eight camp counselors to determine high and low contact groups.

The high contact group increased significantly in more favorable attitudes on all nine subscales of the questionnaires. The low contact group showed no change on six of the subscales and became less favorable toward three other subscale issues.

Rose (1969) collected data from a sample group of 77 American teenage exchange students randomly selected from 1,027 youths who participated in the Youth For Understanding (YFU) Exchange Student Program of Ann Arbor, Michigan in the summer of 1968. The purpose of her research was to examine the relationship between the YFU exchange experience and social distance toward 16 ethnic groups as measured by the Bogardus Social Distance Scale.

Using a pretest/posttest design and no control group, Rose reported positive and significant attitudinal change on the part of the exchangees toward each of the 16 ethnic groups. Rose failed to discover any relationship among selected demographic variables and the observed attitudinal changes.

In a study involving second-language learning in adolescents, Barnwell (1970) reported on doctoral research conducted to determine the effectiveness of a foreign exchange program compared to tradi-
tional classroom instruction. Although the total score for the ex-
change group (as computed by summing over pre and posttest measures)
was larger than the control group, the difference was not significant.
Barnwell called for further research into attitudinal changes which
take place as a result of student exchange programs.

Gardner and Lambert (1972) developed and analyzed measures of
attitudes, motivation, language aptitude, and achievement in a second
language. In their study, they found achievement in French among
English-speaking high school students to be related to attitudes
toward French Canadians and interest in learning French.

Bicknese (1974) reported on work done in the mid-1960s to eval-
uate the psychological impact of a year-long German language program
conducted in Marburg, Germany for American high school students.
Although the study was lacking in experimental rigor, he reported that
participants corrected preconceived ideas about Europe, increased
their German language skills, became familiar with the host culture,
and matured as scholars and persons.

Another study by Gardner, Kirby, Smythe, Dumas, Zelman and
Bramwell (1974) evaluated a bicultural excursion program for eighth
grade students who participated in a four-day trip to another linguis-
tic/cultural community. Gardner et al. reported that students gained
an appreciation of the other community, developed more favorable
attitudes toward that group, and increased their interest in learning
a second language.

Hoeh and Spuck (1975) used a pretest/posttest design to examine
the effects of a three-phase acculturation process on language skill
development and social and personal attitudes of 15 secondary school French students from Michigan who participated in an exchange program in France. The acculturation process included: (1) living with French families; (2) attending a French high school; and (3) touring selected parts of France. Three instruments were used in the study: (1) The MLA-Cooperative Foreign Language Tests; (2) SEMDIF-Semantic Differential of Attitudes Toward Self and French People; and (3) SATLIF-Student Attitudes Toward Life in France (developed by the researchers).

Besides reporting increases in language skill development, Hoeh and Spuck found evidence to indicate positive changes in self-concept. The research indicated that the school phase of the program was not as well received nor as productive as it could have been. The acculturation process in general did produce more favorable and realistic student attitudes toward French people.

Stewart (1976) studied changes in the values and personalities of New Zealand adolescents participating in an AFS exchange program to the United States. Stewart surveyed 200 youths who traveled to the U.S. between 1954 and 1969 and conducted a pretest/posttest study of New Zealanders who traveled to the U.S. during the 1970-71 school year. A group of their nominated best friends served as a control group. Stewart used several existing scales in his research including: the Wilson-Patterson Conservatism Scale (1968); a New Zealand adaptation of the Australian Ethnocentrism Scale (Beswick & Hills, 1969); the Allport-Vernon-Lindzey Study of Values (1960); the Sixteen
Personality Factor Questionnaire (Cattell, 1949); and the Shostrom Personal Orientation Inventory (1963).

Stewart reported that even though both the experimental and control groups decreased in conservatism, the AFS students who were university students were more conservative than the general population of university students in New Zealand. Although ethnocentrism decreased in both groups; the overseas group showed a greater decrease in that characteristic. The exchangees also became more conventional, uncontrolled, theoretical, and social during their year abroad than their nominated best friends. In self-reports following their return, 75% of the AFS students reported at least one favorable change in personality development, including self-confidence, independence, and self-awareness.

Vornberg and Grant (1976) studied attitude change in 44 adolescents from the U.S. and Canada who lived with host families in Sao Paulo, Brazil while attending school there. Four attitudinal scales were administered in a pretest/posttest design.

No significant changes were observed on any of the scales except for social distance with respect to specific ethnic groups. Attitude changes appeared to be related to sex, achievement, and age of subjects. There was also a significant correlation between the students' enjoyment of their homestays and changes in attitudes toward Brazilians. The findings were limited by the small sample size and lack of a control group.

Clement, Gardner, and Smythe (1977) assessed the attitudes of 379 eighth grade anglophone students before and after an exchange program
in Quebec City, Canada. A group of 198 students who did not participate in the program served as a control group. The experimental group was divided into two groups—one judged as having a high amount of contact with Quebec residents and the other judged as having low contact with local residents. At the conclusion of the program, members of the high contact group were found to exhibit more positive attitudes toward French Canadians and the French language than members of the low contact group.

One of the most rigorous studies to date involving the study of adolescents traveling abroad was the work of Cigdem Kagitzcibasi (1978) who studied 200 Turkish participants in a 10-month AFS program. A group of 200 Turkish secondary students made up the control group. Kagitzcibasi developed a scale consisting of 118 questions which were adapted from: (1) two scales she developed; (2) Srole's Scale of Anomia (1956); and (3) abridged versions of Sampson and Smith's World-mindedness Scale (1957) and Rotter's I-E Scale (1966).

Kagitzcibasi found that the overseas students increased in world-mindedness and decreased in authoritarianism and religiosity as compared with the control group. She also found partial support for her hypothesis that the overseas group would increase in internal control.

For her master's thesis, Kormos (1978) evaluated a one-month exchange program involving anglophone and francophone students to study the effectiveness of the exchange in altering specific attitudes and motivations toward second-language acquisition. The study used a pretest/posttest/post-posttest design with an experimental and a con-
Kormos reported that both the French- and English-speaking exchange students developed a more positive attitude toward the other linguistic group in the short-term, but that the changes did not persist over time.

High school Spanish students who participated in an Indiana University foreign language honors program for seven weeks in the summers of 1979 and 1980 were the subjects of doctoral research by Gregory Armstrong (1981). A pretest/posttest design was used to assess Spanish language competencies and attitudinal scales were used to study attitudes toward Mexico and learning Spanish.

Armstrong concluded that language competencies increased more in the seven weeks than would normally have been expected in a full-year traditional course. Attitudes (which were initially very positive) did not appear to change as a result of the program. Armstrong also surveyed 120 program alumni and found that the program fostered continued study of Spanish and that alumni perceived themselves as having acquired greater maturity and a more positive self-concept because of the program.

In 1981, Desrochers and Gardner undertook another examination of the Canadian program cited earlier which features four-day trips by eighth grade students to a French speaking community. They found that participants who had more interaction with French Canadians (by either self-report or peer judgment) developed more favorable attitudes toward the community and the French language, felt less anxious about using French, and professed more intention to speak French than con-
trol group members. Parents of participants also expressed more favorable attitudes toward their children having contact with French Canadians and toward learning French. No relationship was found between the parents' language-related attitudes and those of their children.

Hopkins (1982) studied 209 adolescent exchange students in order to identify variables related to successful overseas experiences. Her sample included students from Latin America studying in the U.S. and students from the U.S. studying in Australia. To measure personality change, Hopkins administered the Loewinger Sentence Completion Test (LSCT) to students upon their arrival in the host country. At the end of their stay, she sent questionnaires to the students, their host families, and local representatives of the exchange organization to obtain data on the students' personal characteristics and background. Along with the LSCT results, data from the questionnaires were used as independent predictor variables. Measures of the students' success were the dependent variables.

From her data, Hopkins constructed 14 dependent scales to measure student success and 19 independent scales (including two from the LSCT) to measure personal and background characteristics. Hopkins correlated the two LSCT variables with each of the 14 dependent scales and used multiple regression to determine which combinations of independent variables might be related to each measure of overseas success.

In both cases, the correlations were only moderate to low indi-
cating that although a relationship may have existed, most of the
difference between successful and unsuccessful stu-nents went largely
unexplained. When she used extreme groups analysis to examine highly
successful students versus very unsuccessful students, Hopkins found
that the predictor variables did distinguish between the two groups
for eight of the 14 criteria of overseas effectiveness. She also
found that for three of these eight criteria, the results of the LSCT
distinguished between the two groups.

When Hopkins split the entire sample into "failure" and "success"
groups as distinguished by students who returned home early or changed
host families more than once, six measures of personality or back-
ground significantly distinguished between the success and failure
groups. This time, however, the results of the LSCT did not discrimi-
nate between the two groups.

Wood, Bostwick, Childers, Fredland, and Rumbaugh (1982) surveyed
57 participants in the Rotary International Exchange Program between
1971 and 1980 to examine how their political, social, and cultural
attitudes differed from a group of 38 non-participant control group
members. A 28-item scale was used to measure student opinions on the
need to accept foreign differences; desirability of world peace;
openness to educational, social, and political change; and personal
impact of the program.

The findings revealed that the exchange participants developed
greater feeling of responsibility toward and acceptance of other
people. Exchangees were also slightly more opposed to supporting U.S.
views, right or wrong, than the non-participants. As viewed by par-
participants, the program brought about essential and desirable personal change. The most important finding was that changes in the attitudes of the participants were not only lasting but that the changes intensified over time.

AFS undertook a major study in 1981 to determine the impact of the AFS exchange experience on over 1,100 high school participants. The results of the study were reported by Hansel in 1985 and 1986. In 1978-79, AFS created a questionnaire by asking returned students to define personal characteristics that had been affected by experience abroad. The returnees were then asked to write statements illustrating the behavior of hypothetical individuals who possessed those characteristics to varying degrees. The finished statements were used to develop scales for a self-rating questionnaire which related to 17 personal characteristics. The instrument was piloted in 1980 and administered in a pretest/posttest design to all program participants in 1981. A group of 160 students that applied for AFS exchanges but did not travel abroad served as a control group.

Hansel reported that the overseas group showed statistically significant increases on 10 of the 17 characteristics. Findings of particular relevance to the present study included increases in adaptability, awareness of opportunities, critical thinking, independence, and responsibility for self. It is worth noting that students who went abroad for only a summer showed greater increases in adaptability than students who were overseas for eleven months. There were no significant differences between the experimental and control groups on
scales related to personal growth and maturity, open-mindedness, or self-confidence. Hansel also reported that students who had traveled abroad prior to applying to AFS exhibited relatively higher pretest scores than students who had never traveled.

Studies Involving 4-H Members

National 4-H Council in Washington, D.C. is responsible for administering a number of international youth exchange programs, most notably the International Four-H Youth Exchange (IFYE). The IFYE program began in 1948. Participants travel abroad for periods ranging from six weeks to six months and usually live and work with host families. To date, over 3,100 youths from 49 states have traveled overseas on the IFYE program (National 4-H Council, 1985a). The Council also provides input into administration of the 4-H/Labo Exchange.

The archives of National 4-H Council contains reports of studies dating back to 1952 which evaluated Council international programs (National 4-H Council, 1986b). Unfortunately, almost without exception, these studies serviced only organizational needs and focused on administrative and physical aspects of 4-H Council exchanges. The few studies which focused on outcomes were generally lacking empirically and of little value from the standpoint of research. There are a few studies, however, that have some relevance to the current study.

The IFYE program was the focus of doctoral research by Tenney (1969). Tenney set out to determine the correlation and interaction of both personal and program characteristics of IFYE alumni in roles
promoting international understanding. The dependent variables were perception of role importance and role performance. Tenney's sample consisted of 474 alumni and a control group of 94 applicants who were not selected for the program.

Selection for this program is competitive, yet Tenney failed to account for a priori differences which may have existed between the two groups. As a result, his findings are suspect. He reported no significant relationship between perception of role importance and the overseas experience but did find a significant correlation with role performance. He discovered no significant difference between leadership and resource capacities for either role importance or performance.

Johnson and Tedrick (1986) reported on Johnson's master's thesis work at North Texas State University undertaken to determine to what extent the IFYE program affected the personal growth and development of participants. The sample consisted of 82 youths between the ages of 15 and 22 from 27 states who traveled to western European countries for six weeks. A questionnaire developed by Johnson contained 13 questions related to knowledge about the target host country and eight items related to attitudes or opinions of the participant toward target host nationals.

Using a t-test for the comparison of mean pretest and posttest scores, Johnson determined that participants showed a significant increase in knowledge about the host country on ten of the 13 questions. Johnson failed to find any significant changes on seven of the eight items related to opinions and attitudes. The one exception was
an item regarding overall knowledge of the target host country. This item seemed to be more related to the 13 knowledge questions than to questions about attitudes and opinions.

This study had some methodological problems: a control group was not used, the extent of pre-trip orientation provided by the participant's state 4-H staff was not accounted for, the pretest was administered after some of the pre-departure orientation was completed, and the researchers intimate that the posttesting environment was less than ideal. Therefore, the results can only be considered as tentative.

American and Japanese participants in the 4-H/Labo Exchange were the focus of a 1986 master's thesis by Woody at the University of Tennessee. The purpose of the study was to gain knowledge concerning the relationships among personal characteristics of 4-H and Labo members and exchange activities. The bulk of the study dealt with statistical descriptions of the participants and their activities. The study did not address changes in personal development or personality. Woody's sample consisted of 20 Tennessee 4-H club members who lived in Japan for a month and 37 Labo members who spent one month in Tennessee during the summer of 1985. The study was structured so that a control group would have served no particular purpose. This research would have made a more valuable contribution to the field if it had been underpinned by a theoretical model and had not dealt almost exclusively with demographic descriptions.
Summary

The studies reviewed in Chapter II were included because of one or more of the following reasons: (1) contribution to the field of educational interchange in general; (2) special significance to the problem being studied in this thesis; and/or (3) significance as research focusing on previous 4-H youth exchanges.

All the studies reviewed here have attempted to examine how the personalities, attitudes, and values of individuals are affected by traveling abroad. Chapter I discussed some of the problems associated with studying international interchange, addressed why a greater number of empirically sound studies have not been conducted, noted some of the flaws that commonly characterize research in the field, and discussed the need for additional study. The studies cited, even the most empirically sound, illustrate how some of these problems and flaws manifest themselves in the literature.

Hansel (1984) listed several factors drawn from the literature which must be taken into account when studying the effects of an international experience on the traveler:

1. length of the sojourn
2. frequency and quality of contact with host nationals
3. nationality of the sojourner and type of community he or she is from
4. country and size of community in which the sojourn takes place
5. age and sex of the sojourner
6. activities of the sojourner while in the host country
7. attitudes of the sojourner prior to the experience.
A review of the literature also suggests that several methodological factors contribute to the empirical soundness of research associated with travel abroad. These include:

1. using a generalizable sample data pool
2. employing a carefully selected control group
3. including a theoretical base
4. forming testable hypotheses
5. selecting valid instrumentation
6. supplementing data gathered using instruments with interviews, written comments, and other subjective measures
7. seeking a degree of homogeneity within the sample and the experience being studied
8. using a pretest/posttest design with followup

Although it is unlikely that any research project could incorporate all these factors, the study being reported here takes into account, as much as possible, the legacy of the literature: the experimental and control groups were of adequate size; the control group was nominated by the overseas group; the design is based on a tested model; a highly valid and reliable instrument was selected; a pretest/posttest/post-test design provided measurements over time; testable hypotheses were developed; and the 4-H/Labo Exchange offered the homogeneity of each participant living with one host family for one month in one country.
The purpose of this study was to determine whether changes in personality functioning occur in teenagers participating in one-month homestays abroad. Specifically, the study was designed to provide answers to the following questions:

1. How was the direction and degree of personality change (if any) in youth who participated in homestays abroad significantly different from members of the control group who stayed at home?

2. Which of these significant personality changes (if any) persisted four months later?

In attempting to answer these questions, the following null hypotheses were tested:

1. There is no significant difference in the directions and degrees of personality changes for the exchange group as compared to the control group.

2. No significant relationship exists among any of the antecedent variables and any of the outcome or sustained outcome variables for the exchange group.

This chapter is divided into four sections. The first section describes the two questionnaires and personality instrument used in the study. A description of the sample is provided in the second section. The third section discusses the data collection procedures and returns. The data analysis techniques are outlined in the final
Description of Instruments

Two questionnaires developed specifically for the study and the California Psychological Inventory (CPI) were used to collect data from each experimental and control group member.

Participant Information Questionnaire. A questionnaire was developed (Appendix B) to collect information from the exchange and control groups for the following antecedent variables: age; sex; place of residence; years enrolled in 4-H; number of older brothers/sisters; number of younger brothers/sisters; number of brothers/sisters living at home last school year; composition of family; race; religion; number of hours each week spent with friends; membership in clubs other than 4-H; previous international travel by members of immediate family; previous experience in hosting international guests; languages (other than English) spoken in the home; number of semesters of foreign language study; family income; perceived academic achievement; years of paternal and maternal education; and percent of exchange trip expenses paid by participant (not applicable to control group).

Exchange Activities Questionnaire. A questionnaire was developed (Appendix C) to collect information from the exchange group for the following transaction variables: whether participant lived with a Japanese host family whose son/daughter had previously been hosted by U.S. participant's family; age difference in years between participant and host brother/sister; and the number of children living in the
Japanese home. In addition, participants responded to eight Likert-type items which provided information about: participants' perception of the overall homestay experience; perception of the Labo Camp experience; like/dislike of Japanese food; effect of not speaking Japanese on the homestay experience; Japanese language skills acquired; time spent with host brother/sister; perceived closeness to host family; and perception of dissonance with host brother/sister. Control group members did not complete the Exchange Activities Questionnaire.

The first question on the Exchange Activities Questionnaire also provided information about the number of times (if any) that the exchange participant's family had previously hosted a Labo member. This information was used as an antecedent variable.

The California Psychological Inventory. Scores on the 18 scales of the CPI provided additional antecedent variables for the study. The differences between the pretest and posttest CPI scores provided the outcome variables; differences between pretest and post-posttest scores furnished the sustained outcome variables.

The CPI is a widely-used personality inventory that has been the subject of numerous reliability and construct validation studies and is an increasingly popular research tool. The CPI was the second most frequently used personality inventory in research with adolescents from 1969-1973 (LeUnes, Evans, Karnei, & Lowry, 1980).

The inventory is intended primarily for use with "normal" (non-psychiatrically disturbed) individuals. The CPI is a largely self-administered, paper-and-pencil instrument which features a 12-page
reusable booklet and an answer sheet. The answer sheets are hand-scorable using a set of templates (Gough, 1975).

The test booklet contains 468 statements written at a fourth grade reading level, 12 of which appear twice for a total of 480 items. Most of the statements consist of reports of common behavior patterns, customary feelings, opinions, and attitudes about social, ethical, and family matters. The test is designed for group administration, but can be administered individually or by mail. Respondents mark each statement true or false by placing an "X" in the appropriate box labeled "T" or "F" on the answer sheet. Although there is no time limit, most subjects finish the CPI in about one hour.

The content of the CPI is much less objectionable than the Minnesota Multiphasic Personality Inventory (MMPI) from which the CPI draws 178 of its items. The CPI has been used with subjects from ages 12 to 70 although the content is generally geared more to students and young adults than to older individuals. A few of the items are not applicable to subjects in the late elementary and early junior high grades. In spite of this problem, Gough states that the results are still meaningful (Gough, 1975; Megargee, 1972).

Accumulated evidence suggests that the scales measure what their titles indicate (Baucom, 1985). Baucom states that summarizing well over 1,000 CPI references is not possible, yet many of the correlations between individual CPI scales and relevant external criteria fall in the .2 to .5 range. He notes that such relationships are typical in personality research and that extremely high correlations are unlikely since the scales were developed to assess rather broad

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behavioral tendencies.

The focus of the 18 CPI scales is interpersonal behavior or social interaction. Therefore the concepts which Gough chose for assessment are "folk concepts--aspects and attributes of interpersonal behavior that are to be found in all cultures and societies, and that possess a direct and integral relationship to all forms of social interaction" (Gough, 1968, p. 57). Therefore, by measuring such traits as tolerance, sociability, responsibility, etc. the CPI attempts to measure traits which are among those most likely applied by individuals to one another in describing their everyday behavior patterns and traits (Megargee, 1972).

Gough (1968) cites several advantages for selected folk concepts:

1. Because of the cross-cultural applicability of folk concepts, a scale developed in any one culture has at least presumptive relevance for behaviors in any other culture.

2. The variables are meaningful and readily understood by the user.

3. Because of the "power of folk concepts," they can be used to validly predict future behavior in the same context (p. 58).

Gough believes that tests should be useful and usable tools for the prediction of behavior. Therefore, in his scale construction he placed greater emphasis on what Campbe'l (1960) termed practical
validity than he did on trait or construct validity (Megargee, 1972).

Gough (1968) says:

The purpose of each scale is to predict what an individual will do in a specified context and/or to identify individuals who will be described in a certain way. These aims are important both theoretically and practically and should be distinguished from the more common goal in inventory measurement of trait specification. If a scale is intended to define a unidimensional trait of personality, then it must meet minimal statistical requirements of internal homogeneity, domain reliability, and factorial independence. However, if the purpose of a scale is to forecast what a person will say or do, and/or how he will be described by those who know him well, then these statistical considerations become relevant if, and only if, it can be shown that the predictive utility of the measure is improved by their fulfillment (p. 56).

The CPI yields 18 scores: Dominance; Capacity for Status; Sociability; Social Presence; Self-acceptance; Sense of Well-being; Responsibility; Socialization; Self-control; Tolerance; Good Impression; Communality; Achievement via Conformance; Achievement via Independence; Intellectual Efficiency; Psychological-mindedness; Flexibility; and Femininity.

In the California Psychological Inventory Manual, Gough (1975) explains the purpose of each of the eighteen scales:
(1) **Dominance (Do)** - To assess factors of leadership ability, dominance, persistence, and social initiative.

(2) **Capacity for Status (Cs)** - To serve as an index of an individual's capacity for status (not his actual or achieved status). The scale attempts to measure the personal qualities and attributes which underlie and lead to status.

(3) **Sociability (Sy)** - To identify persons of outgoing, sociable, participative temperament.

(4) **Social Presence (Sp)** - To assess factors such as poise, spontaneity, and self-confidence in personal and social interaction.

(5) **Self-acceptance (Sa)** - To assess factors such as sense of personal worth, self-acceptance, and capacity for independent thinking and action.

(6) **Sense of Well-being (Wb)** - To identify persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment.

(7) **Responsibility (Re)** - To identify persons of conscientious, responsible, and dependable disposition and temperament.

(8) **Socialization (So)** - To indicate the degree of social maturity, integrity, and rectitude which the individual has attained.

(9) **Self-control (Sc)** - To assess the degree and adequacy of self-regulation, self-control, and freedom from
impulsivity and self-centeredness.

(10) **Tolerance (To)** – To identify persons with permissive, accepting, and non-judgmental social beliefs and attitudes.

(11) **Good Impression (Gi)** – To identify persons capable of creating a favorable impression, and who are concerned about how others react to them.

(12) **Communality (Cm)** – To indicate the degree to which an individual's reactions and responses correspond to the modal ("common") pattern established for the inventory.

(13) **Achievement via Conformance (Ac)** – To identify those factors of interest and motivation which facilitate achievement in any setting where conformance is a positive behavior.

(14) **Achievement via Independence (Ai)** – To identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors.

(15) **Intellectual Efficiency (Ie)** – To indicate the degree of personal and intellectual efficiency which the individual has attained.

(16) **Psychological-mindedness (Py)** – To measure the degree to which the individual is interested in and responsive to the inner needs, motives, and experiences of others.

(17) **Flexibility (Fx)** – To indicate the degree of flexibil-
ity and adaptability of a person's thinking and social behavior.

(18) **Femininity (Fe)** - To assess the masculinity or femininity of interests. (High scores indicate more feminine interests, low scores more masculine.)

The California Psychological Inventory was selected as an instrument for this study because it is widely used in adolescent research, has undergone extensive validation testing, is well-suited for the age group being studied, may be easily administered by mail, and because its content is not generally objectionable to parents or youth participants. Furthermore, Gough's folk concept theory which underlies the scale construction makes the CPI both theoretically and practically sound for use in studying personality change associated with international youth exchange.

**Description of the Sample**

Four-H is an informal educational youth program of the Cooperative Extension Service which is part of the land-grant university in each state.

Travel abroad opportunities are made available to 4-H club members as part of the 4-H international program. Nationally, the 4-H international program is administered by the National 4-H Council in Washington, D.C.

The 4-H/Labo Exchange is one of several travel abroad opportunities available to 4-H club members. Labo is a Japanese youth organization that offers a program of integrated language learning and
cultural exploration to Japanese adolescents. Each summer, approximately 150 4-H club members travel to Japan and about 1,200 Japanese Labo members travel to the U.S. as part of the exchange. Each participant lives with one host family for one month.

The Participant Information Questionnaire, Exchange Activities Questionnaire, and CPI were administered to 154 adolescent 4-H club members from 21 states who traveled to Japan for one month homestays during the summer of 1986 as part of the 4-H/Labo Exchange.

The Participant Information Questionnaire and the CPI were also administered to a peer control group comprised of 112 adolescents (from 19 states) who did not travel abroad. Members of the control group were nominated by the exchange participants. Each exchangee was asked to nominate a friend who is also enrolled in 4-H, who is the same sex and approximate age as the overseas participant, and who had not previously hosted an international guest or traveled abroad. The Exchange Activities Questionnaire was not administered to the control group since the control group members did not participate in the exchange.

In Table 1, a demographic profile of the overseas group and the peer control group is presented.

A review of the demographic data reveals that the experimental and control groups were well matched demographically. The modal age in both groups was 15 years; 80% of members of both groups were between 13 and 16 years old at the time of the pretest. Males comprised 39% of the overseas group and 31% of the control group. Approximately 85% of members of both groups resided in towns of less
than 10,000 population or in rural areas.

The Mann-Whitney U-test (discussed later in this chapter) was used to analyze the experimental and control group antecedent data to determine if the two groups were statistically comparable. The results of that analysis is shown in Table 2. There were no significant differences between the groups except for the following variables:

1. The overseas group had been enrolled in 4-H an average of 0.76 years longer than the control group (p < .01).

2. The exchange group members had 0.34 fewer brothers and sisters living at home than the control group (p < .05)—perhaps indicating that families with fewer children can better afford overseas experiences for their offspring.

3. Family members of the overseas group had traveled abroad significantly more than family members of the control group. Previous travel by the participant's father, mother, and brothers/sisters were found to be significant at the .05, .01, and .01 levels respectively. Previous travel by the overseas participant was significant at the .05 level. These significant differences were expected since the overseas participants were asked to nominate a peer control group member who had not previously traveled abroad.
**Table 1**

Demographic Profile of Experimental and Control Groups

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<tr>
<th>Trait</th>
<th>Experimental N=154</th>
<th>Control N=112</th>
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</thead>
<tbody>
<tr>
<td>Mean Age (Years)</td>
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<td>14.81</td>
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<tr>
<td>Age in Years (%)</td>
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<tr>
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<td>0.9</td>
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<tr>
<td>Males (%)</td>
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<tr>
<td>Females (%)</td>
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<td>68.8</td>
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</tr>
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<td>18.5</td>
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<td>Central city over 50,000 population</td>
<td>3.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Years Enrolled in 4-H</td>
<td>5.87</td>
<td>5.12</td>
</tr>
<tr>
<td>Hours Spent Weekly with Friends</td>
<td>13.15</td>
<td>14.73</td>
</tr>
<tr>
<td>Years of Parental Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>14.83</td>
<td>13.99</td>
</tr>
<tr>
<td>Mother</td>
<td>14.47</td>
<td>13.49</td>
</tr>
</tbody>
</table>
Table 2

Significant Differences Between Selected Experimental and Control Group Variables As Determined By Mann-Whitney U-test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exp.</td>
</tr>
<tr>
<td>Age</td>
<td>140.13</td>
</tr>
<tr>
<td>Sex</td>
<td>131.03</td>
</tr>
<tr>
<td>Residence</td>
<td>131.04</td>
</tr>
<tr>
<td>Years in 4-H</td>
<td>146.01</td>
</tr>
<tr>
<td>Brothers/Sisters</td>
<td>127.47</td>
</tr>
<tr>
<td>Grades</td>
<td>131.19</td>
</tr>
<tr>
<td>Family Income</td>
<td>139.41</td>
</tr>
<tr>
<td>Hrs. Weekly with Friends</td>
<td>134.10</td>
</tr>
<tr>
<td>No. of Club Memberships</td>
<td>136.36</td>
</tr>
<tr>
<td>Previous Travel by Father</td>
<td>123.09</td>
</tr>
<tr>
<td>Previous Travel by Mother</td>
<td>117.60</td>
</tr>
<tr>
<td>Previous Travel by Brothers/Sisters</td>
<td>114.04</td>
</tr>
<tr>
<td>Previous Travel by &quot;exchange&quot;</td>
<td>117.70</td>
</tr>
<tr>
<td>Hosted Foreign Guests</td>
<td>97.81</td>
</tr>
<tr>
<td>No. of Foreign Guests Hosted</td>
<td>173.51</td>
</tr>
<tr>
<td>Studied Foreign Language</td>
<td>134.71</td>
</tr>
<tr>
<td>No. Semesters of Foreign Lang.</td>
<td>139.33</td>
</tr>
<tr>
<td>Education Level of Father</td>
<td>144.43</td>
</tr>
<tr>
<td>Education Level of Mother</td>
<td>148.14</td>
</tr>
</tbody>
</table>

* p < .05   ** p < .01   *** p < .001
(4) In nominating control group members, the overseas group was asked to nominate friends who had not previously hosted an international guest; this factor accounts for the significant difference between the two groups in their history of hosting experience (p < .00001).

(5) The annual family incomes of the overseas group members were significantly higher (p < .0001) than the incomes of the control group members' families; the means indicated a difference of approximately $9,000 annually. This difference may relate to the enhanced ability of wealthier families to afford overseas experiences for their children.

(6) The levels of paternal and maternal education for the experimental group were significantly higher (p < .05 and .001 respectively) than the control group. Parents of the overseas group members had completed slightly less than one additional year of education on average.

There were significant differences in the pretest mean scores of the two groups on five of the 18 scales of the California Psychological Inventory. The experimental group exhibited higher scores on four scales: Capacity for Status, Social Presence, Sense of Well-being, and Tolerance (p < .01 for all four scales). The control group was significantly higher on the Femininity scale (p < .01) as was predicted because of the larger percentage of females in the control group. The differences on the other four scales cannot be explained
by the sex composition of the two groups since females usually score slightly higher on three of the four scales (Gough, 1975).

Data Collection Procedure and Return Rates

Four-H members who participated in the 4-H/Labo Exchange traveled to and from Japan in two large groups spaced two days apart. Grouping was done for logistical purposes. Group A arrived in Japan on July 20, 1986 and departed on August 20. Group B arrived on July 22 and departed on August 22.

Mail Procedures and Confidentiality. The mailings to the experimental and control group members were conducted using procedures adapted from Dillman (1978). All cover letters were personalized by merging information from a database into letters generated by a word processor. As a guarantee of confidentiality, respondents were asked not to write their names on the questionnaires or CPI answer sheets. The postpaid, return envelopes sent to the group members were preaddressed back to the researcher using his actual mailing address, but also included a non-existent building room number which, in actuality, was an identifying number uniquely assigned to each respondent. In this way, responses could be tracked.

Group members were advised that their participation in the research was not required and that they could withdraw at any time by notifying the researcher.

Nomination of Control Group. On June 4, a letter (see Appendix D) explaining the research project was mailed to each of the 167 4-H members scheduled to participate in the exchange. Each exchangee was
asked to nominate a friend to serve in the control group by returning a nomination form developed for that purpose (see Appendix E). A postcard reminder and, eventually, another nomination form were sent to non-respondents (see Appendixes F and G).

This procedure resulted in the 167 overseas participants nominating a total of 160 peer control group members.

Pretest. On June 18, a packet was mailed to each exchange participant. The packet contained an explanatory cover letter (see Appendixes H and I), a copy of the Participant Information Questionnaire (see Appendix B), a CPI test booklet, a CPI answer sheet and a postage-paid return envelope. The same packet was mailed June 18 to the control group members along with an appropriate explanatory letter (see Appendix J). Control group members nominated after June 18 were mailed materials as their names were received.

A follow-up postcard was mailed on July 2 to non-respondent exchange group and control group members. On July 15 a new set of materials was mailed to control group members who had not responded by that date. Exchange group members who had not responded prior to arrival in Tokyo on July 20 or 22 were asked to complete materials at that time.

After receiving the initial mailing containing the CPI, 154 (92%) of the 167 exchangees agreed to participate in the study and completed the pretest materials. Of the 160 nominated control group members, 112 (70%) agreed to participate in the study and returned the pretest materials.
Mild resistance to some of the CPI's statements was encountered as evidenced from written statements received from youths or parents of the youths who elected not to participate in the research. Written comments also indicated these youth or their parents expected to see test items related specifically to Japan and/or the exchange and, therefore, they could not see the relevance of the CPI. Even considering this mild resistance, the acceptance rates of these two groups of adolescents were still gratifying.

As predicted, a lower percentage of nominated control group members agreed to participate in the study since their only incentive was the promise of an unspecified "free gift" at the conclusion of the project and any organizational allegiance to 4-H.

**Posttest.** During de-briefing in Tokyo on either August 19 or 21 (immediately prior to returning to the U.S.), each exchange participant responded a second time to the personality inventory and completed the Exchange Activities Questionnaire (see Appendix C). A 97% response rate was achieved.

On August 18, all control group members were mailed a packet containing a cover letter (see Appendix L), the CPI test booklet, and a CPI answer sheet to respond to a second time. A reminder postcard and, eventually, a new set of materials (see Appendixes M and N) were sent to non-respondents. This procedure resulted in 85 (76%) of the control group members returning the posttest.

**Post-posttest.** Four months later, on December 2, both groups were mailed another set of CPI materials for completion along with a cover letter (see Appendixes O, P, and Q). A reminder postcard, a
reminder letter, and, eventually, a new set of materials were mailed to non-respondents in both groups (see Appendixes R, S, T, and U). All data from the post-posttest had been collected by January 15, 1987. Of the 154 overseas group members, 127 (82%) completed the post-posttest; of the 112 control group members, 81 (72%) completed the CPI for the third time.

Data Analysis

Most of the antecedent variables were measured on interval scales. A few of the antecedent variables were measured on nominal, nominal-dichotomous, or ordinal scales. All the outcome and sustained outcome variables were measured on continuous scales.

Analysis of covariance (ANCOVA), the Mann-Whitney U-test, and the Kruskal-Wallis one-way analysis of variance were used to measure the significance of the relationships among the antecedent variables and the outcome and sustained outcome variables.

Analysis of Co-variance. ANCOVA was used to determine if the mean change scores (outcome and sustained outcome variables) for the exchange group and control group were significantly different. The null hypothesis in ANCOVA is that the groups being compared are samples taken from the same population. ANCOVA was employed because this method statistically equated the participants as to pretest differences so that the posttest and post-posttest scores reflected different amounts of change for each of the participants on the outcome and sustained outcome variables.

ANCOVA uses three types of variables: (1) continuous dependent
variables; (2) categorical factor variables; and (3) continuous variables which are covaried in the design. In this study, a 2 x 2 x 2 ANCOVA was used to individually analyze each of the dependent outcome and sustained outcome variable. The antecedent variables relating to (1) previous family travel abroad, (2) previous hosting of international guests, and (3) group (experimental or control) were used as factors in the analysis. Each of these factor variables had two values. The co-varied continuous variables were the CPI pretest scores for each of the respective CPI scales and the respondent's annual family income.

ANOVA assumes the basic parametric assumptions (Glass, 1972) that:

1. The samples were random samples from defined populations.
2. The samples were independent.
3. The dependent variable was measured on at least an interval scale.
4. The dependent variable was normally distributed in the population.
5. The population variances were equal.

Mann-Whitney U-test. The Mann-Whitney U-test (also known as the Wilcoxon test) is a non-parametric statistic that was developed to test the null hypothesis that two independent random samples have been drawn from the same population or from two populations with the same distribution. If it is assumed that two samples are obtained from populations with the same form and dispersion, any difference would result only from the difference in the location of the two distribu-

75

87
tions. The Mann-Whitney U-test is, then, the nonparametric equivalent to the normal distribution's t-test for testing the difference between the means of two independent samples (Siegel, 1956).

Nonparametric tests like the Mann-Whitney U-test (and the Kruskal-Wallis ANOVA discussed below) are generally less powerful than their parametric counterparts but are useful in situations where parametric procedures are not appropriate—for example, when the data are nominal or ordinal, or when interval data are from a nonnormal distribution (Siegel, 1956). Both statistics are nondirectional.

In this study, the Mann-Whitney U-test was used to examine independent sub-populations of selected antecedent variables with two values (sub-populations) to determine whether the two independent groups were from the same population or significantly different.

The Mann-Whitney U-test assumes that the two random samples are independent samples (but not matched pairs) for which the measurements are at least at the ordinal scale. The samples need not be equal in size (Siegel, 1956).

Kruskal-Wallis Analysis of Variance. The Kruskal-Wallis one-way analysis of variance (ANOVA) is a non-parametric test that is very similar to the Mann-Whitney U-test except that the Kruskal-Wallis ANOVA is used when there are more than two independent samples. The Kruskal-Wallis test is the nonparametric equivalent of the one-factor completely randomized design of the analysis of variance. The null hypothesis tested is that the several populations have the same distribution, with the alternative hypothesis being that at least one population is different (Siegel, 1956).
In this research, the Kruskal-Wallis ANOVA was used to study independent subpopulations of selected antecedent variables with more than two values (subpopulations) to determine whether the independent groups were from the same population or significantly different.

The Kruskal-Wallis test assumes that the several samples are mutually independent (not matched) for which the measurements are at least at the ordinal scale. The samples need not be equal in size. No assumptions are required about the forms or variances of the distributions, for such differences as well as differences in level can constitute the basis for rejecting the null hypothesis (Siegel, 1956).
Chapter IV

Results

This chapter is divided into two sections. The results of using analysis of covariance to compare the CPI posttest and post-posttest scores for the two groups in the study are discussed in the first section. The results of using nonparametric statistics to examine the relationships among selected exchange group antecedent variables and the outcome and sustained outcome variables are presented in the second section.

Hypothesis 1

The first null hypothesis tested was that there is no significant difference in the directions and degrees of personality changes for the exchange group as compared to the control group. Analysis of covariance was used to determine if the CPI posttest and post-posttest scores for the two groups were significantly different. If the means of the scores were not significantly different, then the null hypothesis would be accepted; if they were significantly different, then the hypothesis would be rejected.

Each of the 18 dependent outcome variables and 18 sustained outcome variables were analyzed in a 2 x 2 x 2 ANCOVA design; three antecedent variables, each with two values, were used as factors in the analysis. The three variables described previous family travel abroad, history of hosting international guests, and group (overseas or control) for each of the cases. The CPI pretest scores and the respondents' annual family incomes were covaried in the design. The
variables designated as factors and covariates were determined by studying the differences between the experimental and control groups using the Mann-Whitney U-test (see Table 2 in Chapter III).

In completing the Participant Information Questionnaire, respondents in both groups answered four questions regarding previous international travel involving members of their immediate family: (1) travel by father; (2) travel by mother; (3) travel by brothers and/or sisters; and (4) travel by the respondent personally. The raw data provided by these four questions were initially treated as four separate variables, each with two values (yes/no). Using the Mann-Whitney U-test to look for differences between the two study groups revealed significant differences on all four variables—the overseas participants' families had a more extensive history of travel abroad than the control group members' families. Because of this finding, the data for these four variables were used to compute a fifth independent variable relating to previous foreign travel by any family member(s) (although not necessarily at the same time). Because it proved to be richer than any of the other four travel variables alone, this new variable was used as one of the three factor variables in the 2 x 2 x 2 ANCOVA design.

As a result of using analysis of covariance to examine the CPI posttests and post-posttest scores for the overseas and control groups, the null hypothesis was rejected at the .05 level of probability for three of the 18 CPI scales. Analysis determined that the posttest scores were significantly different for the two groups on
three of the CPI scales: (1) Communality (Cm); (2) Achievement via Independence (Ai); and (3) Flexibility (Fx). A number of relationships among the factor variables in the design were also found to be significant on these same three scales. Analysis also revealed significant factor variable interactions. A fourth scale—Sense of Well-being (Wb)—although the group differences on this scale were not significant. A discussion of the findings related to each of these four scales follows. Time 1 refers to the time of the pretest, Time 2 refers to the time of the posttest, and Time 3 refers to the time of the post-posttest.

Communality (Cm). Communality does not measure a pure concept like other scales of the CPI. Instead, Cm indicates the degree to which an individual's reactions and responses correspond to the modal pattern established for the inventory. In constructing the Cm scale, Gough selected those items from the total inventory that were answered in a positive direction by 95% or more of the respondents in normative samples (Megargee, 1972).

Table 3 presents the results of using ANCOVA to test the significance of the difference in the mean posttest scores of the two groups on the Cm scale of the CPI.

The mean posttest Cm scores for the overseas and control groups were demonstrated to be significantly different ($p < .05$). Although both groups decreased in Cm between Time 1 and Time 2, the overseas group's mean scores decreased significantly more.

This decrease in Cm by the exchange group is viewed as a positive outcome of the exchange experience. Clinically, high Cm scores are
interpreted as reflecting an overly conventional attitude. Some of
the adjectives Megargee (1972) uses to describe individuals low in Cm
include courageous, daring, pleasure-seeking, reckless, and unconven-
tional, as opposed to rigid, stern, cautious, and formal.

Table 3

Tests of Significance for Posttest Communalities (Cm)
Using Analysis of Covariance

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Cells</td>
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<td>187</td>
<td>20.76</td>
<td></td>
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</tr>
<tr>
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<td>370.11</td>
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<td>.000</td>
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<td>Previously Hosted</td>
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<td>1</td>
<td>2.55</td>
<td>.12</td>
<td>.726</td>
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<tr>
<td>FOREIGN GUESTS</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>History of Family</td>
<td>12.49</td>
<td>1</td>
<td>12.49</td>
<td>.60</td>
<td>.439</td>
</tr>
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<td>TRAVEL ABROAD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental vs</td>
<td>119.13</td>
<td>1</td>
<td>119.13</td>
<td>5.74</td>
<td>.018 *</td>
</tr>
<tr>
<td>Control GROUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOREIGN GUESTS</td>
<td>145.63</td>
<td>1</td>
<td>145.63</td>
<td>7.01</td>
<td>.009 **</td>
</tr>
<tr>
<td>by TRAVEL ABROAD</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOREIGN GUESTS</td>
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<td>32.26</td>
<td>1.55</td>
<td>.214</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRAVEL ABROAD</td>
<td>169.01</td>
<td>1</td>
<td>169.01</td>
<td>8.1'</td>
<td>.005 **</td>
</tr>
<tr>
<td>by GROUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FOREIGN GUESTS</td>
<td>21.78</td>
<td>1</td>
<td>21.78</td>
<td>1.05</td>
<td>.307</td>
</tr>
<tr>
<td>by TRAVEL ABROAD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by GROUP</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05   ** p < .01   *** p < .001
Variation in Cm attributable to family travel abroad and hosting of international guests was significant at the .01 level, but is not as easily accounted for as the variance between the two groups. Cell means for these interactions imply that the differences are attributable to previous hosting experience rather than previous travel by the family. The time between the pretest and posttest essentially comprised the summer school vacation for both groups. The Cm mean scores decreased between the pretest and posttest for every cell in the analysis, but the decrease was greater for youths who had hosted international guests. By the post-posttest in December, the mean scores had increased again, almost to their former levels.

The between-group variation attributable to previous family travel abroad was significant at the .01 level. The cells means for both groups decreased between Time 1 and Time 2 but the mean decreases for the overseas group were much greater. The most significant decrease in Cm was for experimental group members whose families had not previously experienced travel abroad.

Flexibility (Fx). The Flexibility scale was developed to identify people who are flexible, adaptable, and even somewhat changeable in their thinking, behavior, and temperament (Gough, 1968). Individuals scoring high on Fx are likely to be impulsive, relaxed, somewhat disorganized and untidy, tolerant of uncertainty and ambiguity, and non-judgmental regarding views about moral standards and ethical proscriptions (Megargee, 1972).

Table 4 presents the results of testing for significant differ-
ences between the two study groups with regard to Fx posttest scores using analysis of covariance.

Table 4

Tests of Significance for Posttest Flexibility (Fx)
Using Analysis of Covariance

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
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<td>187</td>
<td>9.17</td>
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<td></td>
</tr>
<tr>
<td>Regression</td>
<td>454.72</td>
<td>2</td>
<td>227.36</td>
<td>24.79</td>
<td>.000</td>
</tr>
<tr>
<td>Previously Hosted FOREIGN GUESTS</td>
<td>7.30</td>
<td>1</td>
<td>7.30</td>
<td>.80</td>
<td>.374</td>
</tr>
<tr>
<td>History of Family TRAVEL ABROAD</td>
<td>21.52</td>
<td>1</td>
<td>21.52</td>
<td>2.35</td>
<td>.127</td>
</tr>
<tr>
<td>Experimental vs Control GROUP</td>
<td>43.82</td>
<td>1</td>
<td>43.82</td>
<td>4.78</td>
<td>.030 *</td>
</tr>
<tr>
<td>FOREIGN GUESTS by TRAVEL ABROAD</td>
<td>8.31</td>
<td>1</td>
<td>8.31</td>
<td>.91</td>
<td>.342</td>
</tr>
<tr>
<td>FOREIGN GUESTS by GROUP</td>
<td>11.07</td>
<td>1</td>
<td>11.07</td>
<td>1.21</td>
<td>.273</td>
</tr>
<tr>
<td>TRAVEL ABROAD by GROUP</td>
<td>102.71</td>
<td>1</td>
<td>102.71</td>
<td>11.20</td>
<td>.001 ***</td>
</tr>
<tr>
<td>FOREIGN GUESTS by TRAVEL ABROAD by GROUP</td>
<td>22.34</td>
<td>1</td>
<td>22.34</td>
<td>.44</td>
<td>.120</td>
</tr>
</tbody>
</table>

* p < .05    ** p < .01    *** p < .001
The analysis demonstrated a significant difference between the mean posttest Fx scores for the experimental and control groups (p < .05). Although the posttest Fx scores for both groups increased, the increase for the overseas group was significantly greater.

It appears that this significant difference is largely attributable to previous foreign travel by the overseas participants' families—an interaction which had a significance of F of .001. Although the Fx of exchange participants from families with a history of travel abroad did not change between Time 1 and Time 2, participants whose families had not previously traveled increased in Fx significantly.

When the ANCOVA was repeated using previous travel by the father as a factor variable (as opposed to travel by any family member), the difference between the experimental and control groups had a .006 significance of F. Repeating the analysis using previous travel by the mother produced a .021 significance of F; another analysis using previous travel by brothers and/or sisters as a factor variable resulted in a .049 significance of F. In each of these three analyses, Fx did not change for participants whose father, mother, or brothers/sisters had traveled abroad previously; conversely, Fx increased significantly for participants whose father, mother or brothers/sisters had not previously traveled overseas. The significance of F fluctuated depending on which family member had previously traveled abroad.

Achievement via Independence (Ai). The purpose of the Achievement via Independence (Ai) scale is to identify those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors (Gough, 1975).
Megargee (1972) lists adjectives to describe individuals with high Ai scores: foresighted, independent, rational, original, and reflective.

Table 5 presents the results of testing for significant differences between the two study groups with regard to Ai posttest scores.

### Table 5

**Tests of Significance for Posttest Achievement via Independence (Ai) Using Analysis of Covariance**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
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<td>187</td>
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<td></td>
</tr>
<tr>
<td>Regression</td>
<td>1446.79</td>
<td>2</td>
<td>723.39</td>
<td>63.04</td>
<td>.000</td>
</tr>
<tr>
<td>Previously Hosted FOREIGN GUESTS</td>
<td>16.10</td>
<td>1</td>
<td>16.10</td>
<td>1.40</td>
<td>.238</td>
</tr>
<tr>
<td>History of Family TRAVEL ABROAD</td>
<td>8.88</td>
<td>1</td>
<td>8.88</td>
<td>.77</td>
<td>.380</td>
</tr>
<tr>
<td>Experimental vs Control GROUP</td>
<td>49.50</td>
<td>1</td>
<td>49.50</td>
<td>4.31</td>
<td>.039 *</td>
</tr>
<tr>
<td>FOREIGN GUESTS by TRAVEL ABROAD</td>
<td>5.67</td>
<td>1</td>
<td>5.67</td>
<td>.49</td>
<td>.483</td>
</tr>
<tr>
<td>FOREIGN GUESTS by GROUP</td>
<td>8.04</td>
<td>1</td>
<td>8.04</td>
<td>.70</td>
<td>.404</td>
</tr>
<tr>
<td>TRAVEL ABROAD by GROUP</td>
<td>2.98</td>
<td>1</td>
<td>2.98</td>
<td>.26</td>
<td>.611</td>
</tr>
<tr>
<td>FOREIGN GUESTS by TRAVEL ABROAD by GROUP</td>
<td>.49</td>
<td>1</td>
<td>.49</td>
<td>.04</td>
<td>.837</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01  *** p < .001
The mean posttest Ai scores for the overseas and control groups were shown to be significantly different ($p < .05$). Between Time 1 and Time 2, the overseas group increased in Ai and the control group which remained at home decreased. None of the interactions among factor variables were significant.

**Sense of Well-being (Wb).** The purpose of the Wb scale of the CPI is to identify those persons who minimize their worries and complaints, and who are relatively free from self-doubt and disillusionment (Gough, 1975). Some adjectives used to describe persons who score high on the Wb scale include: conservative, dependent, inhibited, relaxed, calm, clear-thinking, and rational. Some adjectives which describe persons who score low on the Wb scale include: awkward, defensive, unconventional, anxious, hurried, and restless (Megargee, 1972).

Table 6 shows the results of using analysis of covariance to test for differences between the mean posttest Wb scores of the experimental and control groups.

Although there was no significant difference in mean posttest Wb scores for the experimental and control groups, some significant interactions among factor variables were apparent.

The interaction between previous foreign travel by family members and the two study groups was significant with the significance of $F$ determined to be .008. The mean pretest and posttest Wb scores for the control group members with either travel history did not change between Time 1 and Time 2. Therefore, the source of the variation appears to be the experimental group's travel history.
Table 6

Tests of Significance for Posttest Sense of Well-being (Wb) Using Analysis of Covariance

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>DF</th>
<th>Mean Squares</th>
<th>F</th>
<th>Sign. of F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Within Cells</td>
<td>5170.76</td>
<td>187</td>
<td>27.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>3652.31</td>
<td>2</td>
<td>1826.15</td>
<td>66.04</td>
<td>.000</td>
</tr>
<tr>
<td>Previously Hosted FOREIGN GUESTS</td>
<td>6.13</td>
<td>1</td>
<td>6.13</td>
<td>.22</td>
<td>.638</td>
</tr>
<tr>
<td>History of Family TRAVEL ABROAD</td>
<td>23.52</td>
<td>1</td>
<td>23.52</td>
<td>.85</td>
<td>.358</td>
</tr>
<tr>
<td>Experimental vs Control GROUP</td>
<td>53.74</td>
<td>1</td>
<td>53.74</td>
<td>1.94</td>
<td>.165</td>
</tr>
<tr>
<td>FOREIGN GUESTS by TRAVEL ABROAD</td>
<td>217.97</td>
<td>1</td>
<td>217.97</td>
<td>7.88</td>
<td>.006 **</td>
</tr>
<tr>
<td>FOREIGN GUESTS by GROUP</td>
<td>74.00</td>
<td>1</td>
<td>74.00</td>
<td>2.68</td>
<td>.104</td>
</tr>
<tr>
<td>TRAVEL ABROAD by GROUP</td>
<td>198.39</td>
<td>1</td>
<td>198.39</td>
<td>7.17</td>
<td>.008 ***</td>
</tr>
<tr>
<td>FOREIGN GUESTS by TRAVEL ABROAD by GROUP</td>
<td>18.21</td>
<td>1</td>
<td>18.21</td>
<td>.66</td>
<td>.418</td>
</tr>
</tbody>
</table>

* p < .05  ** p < .01  *** p < .001
The mean Wb scores for the two overseas subgroups (members with and without a history of previous family travel) were not different at Time 1; but by Time 2 both mean Wb scores had decreased significantly and were significantly different. Overseas group members in both travel history subgroups decreased in Wb, but the decrease was much greater for the group members whose families had not previously traveled abroad.

The variation in Wb attributable to the interaction between family travel history and previous hosting of international guests was significant at the .01 level, but the reason is not clear. The variation appears to be mostly assignable to previous hosting of foreign guests rather than to previous family travel abroad. Between Time 1 and Time 2, youths in both study groups who had previously hosted foreign guests decreased significantly in Wb regardless of whether their family had a history of travel abroad.

Persistence of Changes Over Time. Analysis of covariance was also used to test the significance of the differences between the CPI pretest mean scores and the post-posttest mean scores (sustained outcome variables) for the experimental and control groups. No significant differences were found on any of the CPI scales at Time 3. The significant group differences found between the pretest mean scores and posttest mean scores (outcome variables) did not persist over time.

Hypothesis 2

The second null hypothesis tested was that no significant rela-
relationship exists among any of the antecedent variables and any of the outcome or sustained outcome variables for the exchange group. The Mann-Whitney U-test and Kruskal-Wallis analysis of variance were used to examine independent subpopulations of selected antecedent variables to determine whether the independent groups were from the same population or significantly different.

Both of these nonparametric statistics rank order the values of the dependent outcome and sustained outcome variables for every case of each subpopulation. If the mean ranks of the subpopulations were not significantly different then the null hypothesis would be accepted; if the mean ranks were significantly different then the null hypothesis would be rejected.

As a result of using the Mann-Whitney U-test and Kruskal-Wallis ANOVA to examine the subpopulations of selected antecedent variables for the overseas group, the null hypothesis was rejected. The subpopulations of a number of antecedent variables were found to be significantly different with regard to their mean ranked values for the outcome and sustained outcome variables. Both these nonparametric statistics are nondirectional; the fact that the subpopulations were significantly different is the point of interest rather than the direction of the personality change itself. A discussion follows which addresses the significant differences found among antecedent variable subpopulations.

Previous Foreign Language Study in School. The Mann-Whitney U-test was used to study the exchange group as categorized by two subpopulations: (1) youths with previous foreign language study, and (2)
youths with no previous language study.

A significant difference was found for only one of the outcome variables: Dominance ($p < .05$). The two sub-groups also had significantly different mean ranks on the Do scale at Time 3 ($p < .05$). At Time 3, the two subpopulations were also significantly different for four other sustained outcome variables: (1) Capacity for Status ($p < .05$); (2) Sociability ($p < .05$); (3) Social Presence ($p < .01$); and (4) Self-acceptance ($p < .01$).

For all six variables, the youths who had not previously studied a foreign language changed significantly more than youths who had studied a language in school.

Semesters of Foreign Language Study. Evidence of a trend related to previous study of a foreign language is further supported by examining the exchange group as categorized by number of semesters of foreign language study.

The data gathered pertaining to number of semesters of foreign language study in school were grouped into four categories for analysis: (1) no previous language study ($N=62$); (2) one or two semesters ($N=33$); (3) three or four semesters ($N=20$); and (4) more than four semesters ($N=6$).

As determined by the Kruskal-Wallis ANOVA, the four subpopulations created by categorizing the data were significantly different with regard to changes on five of the outcome variables: (1) Dominance ($p < .05$); (2) Sociability ($p < .05$); (3) Social Presence ($p < .05$); (4) Achievement via Conformance ($p < .05$); and (5) Intellectual
Efficiency ($p < .05$). Two of these changes persisted at Time 3 resulting in the sub-populations being significantly different on two of the sustained outcome variables—Sociability ($p < .01$) and Social Presence ($p < .05$). The independent samples were also significantly different at Time 3 on the Self-acceptance scale of the CPI ($p < .01$).

Examination of the mean ranks for each of the subpopulations reveals a trend. For every outcome and sustained outcome variable except one (Social Presence at Time 3), exchangees who had previously studied a foreign language for one or two semesters changed the least. Exchangees who had studied three or four semesters of foreign language changed the most. For all eight variables, participants with no previous foreign language study changed significantly more than youths who had studied a language for one or two semesters. The mean ranks of youths with more than four semesters of language study appeared to be generally unpredictable, perhaps because of the small number of cases (6).

This evidence, combined with the earlier findings regarding previous study of a foreign language (yes/no), indicates that (1) students who had not studied a language changed significantly; (2) students who had studied a language for one or two semesters changed the least; and (3) students who had elected to study a language for three or four semesters changed, not only significantly but most of all.

As has been noted, analysis indicated that exchangees who had studied a language changed less than those who had not. It appears that this finding was influenced to a large degree by the change scores of youths who had studied a language only one or two semesters.
rather than by the change scores of youths who had studied a language three or four semesters.

**Percent of Trip Expenses Paid By Participant.** The data gathered pertaining to the percent of the trip expenses which were paid personally by the participant were regrouped for analysis into four categories according to percent paid: (1) 75 - 100%; (2) 50 - 74%; (3) 25 - 49%; and (4) 0 - 24%.

Analysis using the Kruskal-Wallis ANOVA determined that the four independent subpopulations were significantly different with regard to the outcome variables on six CPI scales: (1) Dominance ($p < .05$); (2) Self-acceptance ($p < .01$); (3) Responsibility ($p < .05$); (4) Tolerance ($p < .001$); (5) Achievement via Independence ($p < .05$); and (6) Intellectual Efficiency ($p < .01$).

Examination of the mean ranks of the subpopulations on each scale indicates a trend. On all six scales, participants changed the most who used personal funds to pay 75% to 100% of their trip expenses. On three of the six scales, exchangees who personally paid 24% or less of their expenses changed the least. The mean ranks of the intermediate subpopulations fluctuated in no particular pattern.

**History of Family Travel.** The Mann-Whitney U-test was used to examine the independent subpopulations for the five variables related to the history of foreign travel by participants and their families. Analysis determined that the subpopulations for three of the independent travel variables were significantly different with regard to certain dependent outcome and sustained outcome variables.
Analysis of the variable which described the history of foreign travel by any family member (yes/no) revealed that the two subpopulations were significantly different for two sustained outcome variables: Self-control ($p < .05$) and Good Impression ($p < .01$). As would be predicted from the earlier analysis of this variable using ANCOVA, youths whose families had no history of travel abroad experienced the most significant changes on both scales.

The two subpopulations for the variable which indicated whether the participants themselves had traveled abroad previously were significantly different for two outcome variables: Achievement via Conformance ($p < .05$) and Femininity ($p < .05$). Youths who had not traveled abroad prior to the 4-H/4B Exchange changed the most on these two scales.

The two subpopulations of the variable which indicated whether the participant's father had previously traveled abroad were significantly different for the Tolerance outcome variable ($p < .05$) and for changes on three of the sustained outcome variables: (1) Social Presence ($p < .05$); (2) Self-acceptance ($p < .01$); and (3) Socialization ($p < .05$). Participants whose fathers had not previously traveled abroad changed significantly more on all three sustained outcome variables. This finding is consistent with the results described earlier which were obtained when this travel variable was analyzed using analysis of covariance.

In the case of the Tolerance outcome variable, however, participants whose fathers had traveled previously experienced the most significant changes. This finding is an anomaly which defies explana-
tion and is inconsistent with other findings in the study.

Persistence of Changes Over Time. Three of the antecedent variables had independent subpopulations which were significantly different on one or more CPI scales at Time 2 and remained significantly different at Time 3. Three antecedent variables had subpopulations which were not significantly different at Time 2 but had become different by Time 3. Finally, three antecedent variables were composed of subpopulations which were significantly different at Time 2 but the difference did not persist to Time 3.

Table 7 presents the findings related to significant differences in antecedent variable subpopulations at Time 2 and Time 3.

Two of the antecedent variables had subpopulations which were significantly different at Time 3 for Sociability. The subpopulations of three antecedent variables were different at Time 3 for Social Presence. These two CPI scales assess factors and temperament related to social skills, poise, and self-confidence in social and personal interaction. The two subpopulations for the variable related to previous foreign travel by the participant's father were significantly different at Time 3 but not at Time 2 for Socialization, another scale which is closely related to Sociability and Social Presence.

The only other notable result was that the subpopulations for the antecedent variable describing previous foreign language study were significantly different on only one scale at Time 2 but five scales at Time 3.
Table 7

Persistence of Significant Changes in Antecedent Variable Subpopulations Over Time

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Time 2</th>
<th>Time 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Study of a Foreign Language</td>
<td>Dominance</td>
<td>Dominance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Capacity for Status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sociability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Presence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-acceptance</td>
</tr>
<tr>
<td>No. Semesters of Foreign Language Study</td>
<td>Dominance</td>
<td>Sociability</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social Presence</td>
</tr>
<tr>
<td></td>
<td>Social Presence</td>
<td>Social Presence</td>
</tr>
<tr>
<td></td>
<td>Achievement via</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conformance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intellectual</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Efficiency</td>
<td></td>
</tr>
<tr>
<td>Previous Foreign Travel by Any Family Member</td>
<td></td>
<td>Self-control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Good Impression</td>
</tr>
<tr>
<td>Previous Foreign Travel by Participant</td>
<td>Achievement via</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conformance</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Femininity</td>
<td></td>
</tr>
<tr>
<td>Previous Foreign Travel by Participant's Father</td>
<td>Tolerance</td>
<td>Social Presence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-acceptance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Socialization</td>
</tr>
</tbody>
</table>
Chapter V
Summary, Conclusions, and Recommendations

The purpose, methods, and results of this study are summarized in the first section of this chapter. Conclusions are discussed in the second section. In the last two sections, implications and recommendations for future research are presented.

Summary

Purpose

The purpose of this study was to determine whether changes in personality functioning occur in teenagers participating in one-month homestays abroad. Specifically, the study was designed to provide answers to the following questions:

1. How was the direction and degree of personality change (if any) in youth who participated in homestays abroad significantly different from members of the control group who stayed at home?

2. Which of these significant personality changes (if any) persisted four months later?

Method

Two questionnaires and the California Psychological Inventory (CPI) were used to collect data for the study. A Participant Information Questionnaire was developed to provide a priori information about the experimental and control group members for selected antecedent variables. An Exchange Activities Questionnaire was used to collect
information from the overseas participants about certain circumstan-
cess, experiences, and perceptions which characterized their exchange
experiences. This information provided the transaction variables for
the study. The CPI was administered to both study groups immediately
prior to the exchange (Time 1), again at its conclusion (Time 2), and
a third time four months later (Time 3). Changes in personality on
the 18 scales of the CPI between Time 1 and Time 2 pro-
vided outcome variables for the study; changes between Time 1 and Time 3 pro-
vided sustained outcome variables.

The sample consisted of 154 adolescent 4-H club members from 21
states who traveled to Japan for one month homestays during the summer
of 1986 as part of the 4-H/Sabo Exchange. Four-H is an informal
educational program of each land-grant university's Cooperative Extens-
ion Service. Labo is a youth organization in Japan that offers
Japanese youth an integrated program of language learning and cultural
exploration which culminates in a trip abroad.

The 4-H overseas participants were asked to nominate a same-age,
same-sex friend also in 4-H who had not previously traveled abroad or
hosted an international guest. This procedure resulted in establish-
ment of a comparison control group comprised of 112 youths perceived
as compatriots by the overseas participants.

Analysis using the Mann-Whitney U-test revealed that the experi-
mental and control groups were well-matched demographically. As pre-
dicted, the groups were significantly different with regard to pre-
vious family travel abroad and history of hosting international
guests. A significant difference in annual family income between the
two groups were rolled for in the study.

The following null hypotheses were tested:

(1) There is no significant difference in the directions and degrees of personality changes for the exchange group as compared to the control group.

(2) No significant relationship exists among any of the antecedent variables and any of the outcome or sustained outcome variables for the exchange group.

Analysis of covariance (ANCOVA) was used to determine if the mean pretest and posttest scores for the exchange group and control group were significantly different. ANCOVA statistically equated the participants as to CPI pretest differences so that the posttest scores reflected different amounts of change for each of the participants on the dependent outcome and sustained outcome variables. The independent factor variables in the analysis described previous family travel abroad, history of hosting international guests, and group (experimental or control). The CPI pretest scores and annual family income were covaried in the design.

The Mann-Whitney U-test (also known as the Wilcoxon Test) and the Kruskal-Wallis analysis of variance (ANOVA) were used to examine the independent subpopulations of selected antecedent variables to determine whether the independent samples were from the same population or significantly different with regard to the outcome and sustained outcome variables.
Results

The first null hypothesis was rejected at the .05 level of probability for three of the 18 CPI scales. Analysis using ANCOVA determined that the posttest CPI scores of the experimental and control groups were significantly different on three scales of the CPI: (1) Communality (Cm); (2) Achievement via Independence (Ai); and (3) Flexibility (Fx). A number of relationships among the ANCOVA factor variables were also found to be significant. These findings do not support the conclusions reported in some previous studies that personality changes as a result of overseas experiences are rare (McGuigan, 1958; Bower, 1973; Hensley et al., 1978).

Analysis demonstrated that the overseas group decreased significantly more in Cm between Time 1 (pretest) and Time 2 (posttest) than did the control group (p < .05). Youths in both groups who had previously hosted an international guest decreased significantly in Cm during the same period of time (p < .01).

The between-group variation on the Cm scale attributable to previous travel abroad by any immediate family member was significant at the .01 level. Analysis showed that both study groups decreased in Cm, but the change was greater for the overseas group. Exchangees who were the first international travelers in their family experienced the greatest decreases.

Between Time 1 and Time 2, the overseas group increased significantly more in Fx than did the control group (p < .05). This difference appears to be largely attributable to history of foreign travel in the overseas participants' families (p < .001). Exchangees from
families whose members had a history of international travel did not change in Fx between Time 1 and Time 2; participants from families with no previous foreign travel increased in Fx significantly.

The mean posttest scores for the overseas and control groups on the Ai scale of the CPI were also significantly different (p < .05). Between Time 1 and Time 2, the experimental group increased significantly in Ai, although the control group decreased.

Even though there was no significant difference in the posttest scores of the two study groups on the Sense of Well-being (Wb) scale of the CPI, some significant interactions among the factor variables were found. At Time 1, the mean Wb scores for the exchange group members whose families did and did not have a history of travel abroad were not different. By Time 2, however, the mean posttest Wb scores for exchangees from families with no previous travel abroad had decreased significantly compared to youths from families with a history of previous travel (p < .01). For reasons that remain unclear, youths in both study groups who had previously hosted foreign guests decreased significantly in Wb regardless of whether or not their family had a history of travel abroad (p < .01).

The second null hypothesis was also rejected. Use of nondirectional nonparametric statistics revealed significant differences in the independent subpopulations of several antecedent variables.

Analysis indicated that significant changes on a number of CPI scales occurred in students who had not previously studied a foreign language in school. Students who had studied a language for one or
two semesters changed less than students with no previous language study. Students who had studied a language for three or four semesters experienced greater change than either of the first two subpopulations.

The independent subpopulations grouped according to the percent of the trip expenses paid by the participant from personal funds were significantly different with regard to the outcome variables on six CPI scales. Participants who paid 75% to 100% of their expenses changed the most; exchangees who paid 24% or less of their costs changed the least. The intermediate subpopulations changed inconclusively.

Significant differences were found between the independent subpopulations for three of the five variables related to history of foreign travel by participants and their families. Youths whose families had no previous history of foreign travel experienced the most significant changes on two sustained outcome variables (Time 3). Exchangees who were traveling abroad for the first time changed the most on two outcome variables. Participants whose fathers had experienced international travel changed the most on three other sustained outcome variables.

Conclusions

This section presents the conclusions reached about the impact of the 4-H/Labo Exchange on personality changes. Conclusions are also drawn concerning the relationships of selected antecedent variables to personality changes in the exchange group. Finally, conclusions re-
Impact of the 4-H/Labo Exchange on Personality Change

Since the 4-H/Labo Exchange appears to have an impact on personality change, it follows that the concepts and situations encountered by adolescent participants during their month in Japan present the kinds of challenges that, according to Piaget (1969) and Sanford (1962), require individuals to develop and assimilate new responses which, in turn, beget progression through the sequential stages of personal development.

The 4-H/Labo Exchange is significantly related to three dimensions of personality change as measured by the California Psychological Inventory:

1. **Communality** which strongly relates to how conventional or unconventional the individual will be with regard to personality functioning

2. **Achievement via Independence** which identifies factors of interest and motivation which facilitate achievement related to autonomy and independence

3. **Flexibility** which refers to the adaptability of a person's thinking and social behavior

**Decreased Communality (Cm).** At the end of the exchange experience, the overseas group had experienced a significant decrease in communality. This change reflects a group of adolescents who were more daring, pleasure-seeking, and courageous, and had less conven-
tional attitudes after living for one month with Japanese families. This result contradicts findings by Stewart (1976) who concluded that New Zealand adolescents who visited the U.S. became more conventional.

The participants who experienced the most significant decreases in Cm were those youths who came from families in which no immediate family member had previously traveled abroad.

Having previously hosted one or more international guests was related to decreases in Cm between Time 1 and Time 2, not only for the overseas participants, but also for the control group members who remained at home. By Time 3 (four months following the exchange), Cm for both groups had increased again, almost back to the level observed at Time 1. The conclusion that can be drawn from this hyperbolic curve is that less-structured summer experiences are perhaps related to decreases in Cm as compared to the structured experiences which normally characterize the school year.

The fact that youths who had previously hosted foreign guests decreased the most in Cm during the summer suggests that the structuredness of the school year to some degree masks underlying tendencies toward lower Cm. Some of the same adjectives listed above which Gough uses to describe individuals low in Cm could also be used to describe individuals who are perhaps inclined to host an international guest. Making the decision to host someone from another country certainly involves a degree of uncertainty and requires willingness to take risks and be daring. What can be more venturous and unpredictable than young people agreeing to host someone they have never met,
from a place they have never been, and whose customs are foreign to them?

**Increased Flexibility.** There is a general belief among international interchange administrators and program alumni that participation in an overseas program leads to increased flexibility. Hansel (1986) reported that adolescent AFS exchange participants increased in a related trait, adaptability, following an overseas experience. If one accepts Megargee's (1972) description of individuals high in Flexibility (Fx) on the CPI as being adaptable in their thinking, tolerant of uncertainty and ambiguity, and non-judgmental regarding views about moral standards and ethical proscriptions, then it is not unreasonable to infer that increased flexibility might promote what is often broadly referred to as "world understanding" by international interchange researchers.

The findings related to increased flexibility were among the most interesting in the study. Analysis indicated that the overseas participants who were the first member of their immediate family to travel abroad increased significantly in Fx. Participants experienced no gain in Fx if they came from families where any member of the immediate family (including the participant) had traveled previously.

Several observations can be made. First, it appears that once an individual has traveled abroad, no further gain in Fx can be expected from subsequent international travel. Second, it seems fair to speculate that immediate family members who have previously traveled abroad in some way impart concepts or traits related to Fx to their children (or brothers/sisters) even though the child has not traveled abroad.
At this point, the astute reader might question whether the family members who have traveled internationally possessed some personality construct a priori which is a prerequisite for persons making an initial decision to travel abroad. Two considerations cast doubt on such a theory. First, without a doubt, some of the male parents of the 4-H/Labo Exchange participants traveled abroad with little choice on their part because of the military conscription of the years prior to the 80s. Second, control and overseas group members from families with no history of travel abroad, were not significantly different with regard to their Fx pretest mean scores—even though the overseas group members had made a decision to travel abroad prior to that time.

If family members who have traveled abroad do indeed possess a construct related to Fx which can somehow be conferred to fellow family members, this finding suggests that this construct must persist over time—at least long enough for it to be passed along to other family members.

Just what the operative construct is, the conditions under which it is acquired, and how it is imparted to other family members remains unclear but certainly worthy of further investigation.

**Achievement via Independence.** By the conclusion of their four-week homestays in Japan, the overseas participants exhibited significant increases in Ai as opposed to control group members whose scores decreased. The Ai scale is purported to measure those factors of interest and motivation which facilitate achievement in any setting where autonomy and independence are positive behaviors (Gough, 1975).
The increase in Ai which characterized participants at the conclusion of the exchange is viewed as a positive outcome. This finding is supportive of the many claims by overseas program administrators and participants that international experiences result in increased independence and autonomy (Nash, 1976; Rhinesmith, 1980). It is also consistent with earlier studies which found evidence of increased autonomy and independence in individuals following international experiences (Nash, 1976; Kauffmann, 1982; Hansel, 1986).

Relationship of Antecedent Characteristics to Personality Change

Examining the independent subpopulations of selected antecedent variables revealed several significant relationships between antecedent characteristics and personality changes associated with the 4-H/Labo Exchange.

Previous Foreign Language Study. Participants who had not previously studied a language and those who had studied a language beyond the often-required one or two semesters changed the most with regard to outcome and sustained outcome variables. The least change occurred in youths who had enrolled in a foreign language course for only one or two semesters.

It seems reasonable to speculate that students who enroll in a language only one or two semesters are somehow not as susceptible to personality changes related to travel abroad. It is possible that this phenomenon occurs because mandatory enrollment in foreign language courses may result in negative experiences for some students. Perhaps such a negative encounter can be projected in some way to a
travel abroad experience. Alternately, it is possible that studying a language somehow imparts an a priori international experience that inhibits personality change as a result of travel abroad.

Students who voluntarily elect to study a foreign language beyond one or two semesters appear to be different in their susceptibility to personality changes resulting from travel abroad. Perhaps their apparent dedication to this aspect of international activity makes them more enthusiastic about exchange experiences and thus more inclined toward personality change.

Youths who had no prior exposure to foreign language study experienced significant personality changes on certain outcome and sustained outcome variables by Time 2, although the reason defies easy explanation. It is only conjecture, but it could be that youths with no previous foreign language study share something in common with youths who come from families with no previous travel experience since the two subpopulations appear to be especially susceptible to personality changes resulting from an exchange program.

**Percent of Trip Expenses Paid by Participant.** It appears that participants who paid most of their trip expenses changed more than youths who paid only a small proportion of their expenses from personal funds. It does not seem unreasonable to speculate that exchangees who used personal funds to finance most of their trip to Japan may have been more dedicated to participating in homestay and exchange activities, and thus realized more change in personality. Neither does it seem unreasonable to propose the opposite effect for youths who paid only a small part of their own expenses.
History of Family Travel. Results indicated that the independent subpopulations for three of the travel variables were significantly different. These findings serve to strengthen the earlier conclusion that group differences related to Communality seem to be associated with the history of foreign travel in the participant's immediate family.

Persistence of Personality Changes

Significant differences were discovered in the directions and degrees of personality changes in the exchange group compared to the control group for the outcome variables at Time 2. These significant differences, however, were not still present at Time 3.

Table 7 in Chapter IV presents findings related to significant differences for the independent subpopulations of five antecedent variables. Certain subpopulations were significantly different on a total of eight CPI scales at Time 2 and eight CPI scales (although not necessarily the same ones) at Time 3.

From the results, it can be concluded that certain personality changes do not occur immediately, but rather appear only after a period of time has passed. Other changes which appear immediately disappear after the passage of time.

These conclusions imply that an exchange experience may require a certain amount of post-exchange processing time during which the exchange participants assimilate the experiences into their personalities. This seems to be particularly true for the scales related to social factors (Sociability, Social Presence, and Socialization).
The appearance and persistence of significant differences on these scales related to social factors may be partially explained by a factor perhaps unique to 4-H international exchange programs. Historically, returned participants have been expected to present talks and slide presentations to community groups as a method of reporting on their trip activities. Assuming that many of the returned participants in the 4-H/Labo Exchange did indeed embark on a series of such presentations in the months following their return, it would seem reasonable that such encounters with groups would build social skills and perhaps influence personality change on the related CPI scales by Time 3.

The lack of persistence in the significant differences found between the experimental and control group on three of the CPI scales and the absence of other persistent changes with regard to the antecedent variable subpopulations might be attributable, in part, to the 4-H/Labo Exchange being only four weeks in duration. It may be that the CPI does not have the ability to fully measure personality change over such a short period of time.

Implications

This study's greatest value is the new information which it adds to the knowledge base in the field of international interchange, particularly in the area of adolescents traveling abroad. It is apparent that the California Psychological Inventory is a useful instrument for measuring personality changes associated with international activities, even for a program of short duration such as the
4-H/Labo Exchange. Until now, the CPI has been largely overlooked by previous researchers in the field; the review of the research literature revealed only one previous study which used the CPI (Gough & McCormack, 1967).

The findings in this study have practical implications for selecting program participants. Many international exchange and study abroad application forms request information about previous language study and travel abroad experience. For some competitive programs, a history of previous travel and language study are considered positive attributes that may enhance the likelihood of selection.

It seems reasonable that previous travel experience and language fluency would be desirable for a Peace Corps volunteer bound for a developing country in West Africa. Language fluency would be critical for a student about to receive academic instruction abroad in another language.

However, if the goals of an international program include increasing flexibility and tolerance of ambiguity, improving social skills, and challenging conventional attitudes, then this study strongly implies that applicants who have not previously traveled abroad and who have not previously studied a foreign language stand to change the most in these areas. This observation is not intended to imply that such applicants should be selected above youths who have traveled or who have studied a language, but rather that applicants lacking in these international experiences should not be excluded from overseas programs—everyone who travels abroad for the first time does...
so without the benefit of a previous overseas experience.

These findings related to travel history and previous foreign language study also have implications for future research. The literature review failed to find previous studies that took into account either variable as they relate to personality change. Differences related to both variables were highly significant and should be explored further.

The finding that participants who paid most of their trip expenses changed the most as a result of the exchange has implications for administrators of programs involving adolescents (to say nothing of parents and well-meaning relatives who offer to pay an exchangee's expenses). Program administrators may wish to encourage participants to earn a portion of their trip fees and make suggestions as to how this might be done. Parents and others should also offer such encouragement and assist participants in earning funds.

Finally, examination of the demographic variables for the exchange participants and the findings related to previous family travel abroad demand that international exchange-sponsoring organizations, U.S. government agencies which promote and fund youth exchanges, and program administrators find ways to include more low-income, minority, and disadvantaged youth in international exchanges. Such youths are not likely to come from families with previous travel abroad and, therefore, may stand to gain the most from international experiences. In the 4-H/Labo Exchange, the participant demographic profile is simply not representative of the demographic composition of the 4-H clientele or the population at large. There is no reason to believe
that most other organizations and institutions which sponsor international programs are different from 4-H in this respect.

**Recommendations for Future Research**

While this study provided answers to a few major questions, it was hoped that it would generate other questions for further research. There are several areas that seem particularly worthy of further investigation:

1. The history of previous foreign travel by members of the participant's immediate family appears to have a powerful influence on personality change. This variable needs to be expanded and explored further. How is this influence passed from parents who have traveled overseas to offspring who have not traveled abroad? Is the influence of extensive travel within the United States equally powerful?

2. More should be learned about what kinds of individuals choose to travel abroad and why. What influences do such antecedent factors have on personality change?

3. Previous foreign language study seems to influence personality change in travel abroad participants. While students who have never studied a language experience significant changes, why do students who study a language one or two semesters hardly change at all; yet youths who study three or four semesters of foreign language change significantly?

4. The CPI scales that seem the most fruitful for future research are Flexibility, Communalaty, and the three scales associated with social factors: Sociability, Social Presence, and Socialization.
(5) Experience with this study confirms the need for similar future research to include a control group and to incorporate a longitudinal design.

(6) Although in this study it was not financially and logistically possible to supplement the CPI data with interview data, future research would benefit from the additional information that interviews could provide.

(7) Review of the literature suggests that further study is especially needed with regard to the attitudes of participants prior to the overseas experience, the frequency and contact of the exchangee with host nationals, and the length of the sojourn.

(8) More longitudinal studies need to be undertaken to determine the long-term effects of international experiences on former participants and their families. Do they buy more foreign products? Are they more aware of world affairs? Do they enter internationally-related occupations? Are they inclined to host foreign guests? Are they more likely to study foreign languages or major in international areas in college?


Cronbach, L. (1963). Course improvement through education. Teachers College Record, 64, 672-683.


Hopkins, R.S. (1982). Defining and predicting overseas effectiveness for adolescent exchange students (Doctoral dissertation, University of Massachusetts, 1982). (University Microfilms No. 82-10334)


Marion, P.B. (1980). Relationships of student characteristics and experiences with attitude changes in a program of study abroad. Journal of College Student Personnel, 21, 58-64.


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APPENDIX A

STATES PARTICIPATING IN THE 1986 4-H/LABO EXCHANGE
<table>
<thead>
<tr>
<th>Participating State</th>
<th>No./Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>3</td>
</tr>
<tr>
<td>California</td>
<td>9</td>
</tr>
<tr>
<td>Colorado</td>
<td>9</td>
</tr>
<tr>
<td>Idaho</td>
<td>2</td>
</tr>
<tr>
<td>Illinois</td>
<td>10</td>
</tr>
<tr>
<td>Indiana</td>
<td>25</td>
</tr>
<tr>
<td>Kansas</td>
<td>14</td>
</tr>
<tr>
<td>Kentucky</td>
<td>3</td>
</tr>
<tr>
<td>Louisiana</td>
<td>10</td>
</tr>
<tr>
<td>Maryland</td>
<td>1</td>
</tr>
<tr>
<td>Michigan</td>
<td>11</td>
</tr>
<tr>
<td>Minnesota</td>
<td>5</td>
</tr>
<tr>
<td>Missouri</td>
<td>3</td>
</tr>
<tr>
<td>Nebraska</td>
<td>3</td>
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<td>Ohio</td>
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<td>Virginia</td>
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<tr>
<td>Washington</td>
<td>1</td>
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<tr>
<td>Wisconsin</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>154</strong></td>
</tr>
</tbody>
</table>
APPENDIX B

PARTICIPANT INFORMATION QUESTIONNAIRE
**Participant Information**

**DIRECTIONS:** Please answer each of the following completely by placing an "X" beside the best answer or filling in the blank. If you do not know answers to some of the questions, please ask your folks for help. It is not necessary to put your name on the questionnaire. University policy guarantees that your responses will be absolutely confidential. Thanks for your help!

1) How old will you be as of July 20? ____
2) What is your sex?
   1( ) male 2( ) female
3) Where do you live (please check only one):
   1( ) Farm 4( ) Town or city 10,000 - 50,000
   2( ) Rural, non-farm 5( ) Suburbs of city over 50,000
   3( ) Town under 10,000 6( ) Central city over 50,000
4) Including this year, how many years have you been in 4-H? ____
5) How many older brothers and sisters do you have? ____
6) How many younger brothers and sisters do you have? ____
7) How many brothers and sisters lived at home all of last school year? ____
8) Check the statement(s) below which describe(s) your living situation today:
   1( ) living in household with two parents/guardians present
   2( ) living in household with one parent/guardian present
   3( ) living with friends or relatives
   4( ) living with foster parents
   5( ) parents divorced or separated and live with each parent part of the year
   6( ) other (please describe) ________________________________
9) What is your race?
   1( ) White, but not Hispanic 4( ) Hispanic
   2( ) Black, but not Hispanic 5( ) Asian or Pacific Islander
   3( ) American Indian or Alaskan native
10) What is your religious preference?
    1( ) Protestant 4( ) Other religion not listed
    2( ) Catholic 5( ) Not member of organized religion
    3( ) Jewish
11) Approximately how many hours each week do you spend doing things with friends? (not including members of your family or time at school) ____ hours
12) Not including 4-H, how many other clubs do you belong to that meet at least once each month (Scouts, school & church groups, etc.)? ____
13) Have members of your family ever traveled outside of the U.S., Mexico or Canada (please respond to each question below)?
    Father/male guardian? 1( ) Yes 2( ) No
    Mother/female guardian? 1( ) Yes 2( ) No
    Brothers or sisters? 1( ) Yes 2( ) No
    You personally? 1( ) Yes 2( ) No
14) Has your family ever hosted an international guest overnight in your home?
    1( ) Yes 2( ) No If so, on how many different occasions? ____

O'JER O'JER O'JER

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15) Is any language other than English regularly spoken in your home? 
   1[ ] Yes  2[ ] No

16) Have you ever taken a foreign language course in school? 
   1[ ] Yes  2[ ] No  If so, how many semesters? ______

17) What was your total household income in 1985? (Ask your folks for help!) 
   (Include wages, salary, commissions bonuses from all jobs; also include interest, dividends, rental and Social Security income; report amount before deduction for taxes; if reporting farm or business income, report net income after expenses; as an alternative, report Line 32 on Internal Revenue Service Form 1040)

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>01</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>02</td>
</tr>
<tr>
<td>$15,000 to $19,999</td>
<td>03</td>
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<td>$95,000 to $99,999</td>
<td>19</td>
</tr>
<tr>
<td>$100,000 or more</td>
<td>20</td>
</tr>
</tbody>
</table>

18) How would you describe yourself as a student in school? 
   1[ ] A student  2[ ] A-/B+ student  3[ ] B-/C+ student  4[ ] C+/D student

19) What is the highest grade in school that your father/male guardian attended? 
   Elementary through High School (grade or year):
   1 2 3 4 5 6 7 8 9 10 11 12
   College (academic year):
   1 2 3 4 5 6 7 8 or more
   Question does not apply: [ ]

20) What is the highest grade in school that your mother/female guardian attended? 
   Elementary through High School (grade or year):
   1 2 3 4 5 6 7 8 9 10 11 12
   College (academic year):
   1 2 3 4 5 6 7 8 or more
   Question does not apply: [ ]

21) Approximately what percent of your Japan exchange trip expenses did you pay using your own personal money? (if not going to Japan, skip this question)
   1[ ] Paid 100% of my expenses  2[ ] Paid 90 - 99%
   3[ ] Paid 75 - 89%  4[ ] Paid 50 - 74%
   5[ ] Paid 25 - 49%  6[ ] Paid 10 - 24%
   7[ ] Paid 1 - 9%  8[ ] Paid none of my expenses
APPENDIX C

EXCHANGE ACTIVITIES QUESTIONNAIRE
EXCHANGE ACTIVITIES QUESTIONNAIRE

(1) Have you previously hosted a Labo member in your home? ___Yes ___No

(2) If so, how many times? ______

(3) This summer you lived with a Labo member’s family. Did you host this same Labo member in your home in the past? ___Yes ___No

(4) How old are you today? ______
   How old is your host brother or sister? ______

(5) How many brothers and sisters does your host brother/sister have who lived at home during your homestay? ______

Please respond to each of the following statements by marking the one answer which best describes your feelings:

SA: Strongly Agree
A: Agree
U: Uncertain
D: Disagree
SD: Strongly Disagree

(6) My Labo homestay experience was very good.
   ( ) SA ( ) A ( ) U ( ) D ( ) SD

(7) I enjoyed Labo Camp very much.
   ( ) SA ( ) A ( ) D ( ) SD

(8) I really did not like Japanese food.
   ( ) SA ( ) A ( ) U ( ) D ( ) SD

(9) Not being able to speak Japanese made my experience less enjoyable than it might otherwise have been.
   ( ) SA ( ) A ( ) U ( ) D ( ) SD

(10) I learned a lot of Japanese language during my month in Japan.
    ( ) SA ( ) A ( ) U ( ) D ( ) SD

(11) My host brother/sister spent a lot of time with me during my homestay.
    ( ) SA ( ) A ( ) U ( ) D ( ) SD

(12) During my homestay I became very close to my host family.
    ( ) SA ( ) A ( ) U ( ) D ( ) SD

(13) I did not get along very well with my host brother/sister this summer.
    ( ) SA ( ) A ( ) U ( ) D ( ) SD

THANK YOU FOR YOUR HELP!
APPENDIX D

INITIAL LETTER MAILED TO EXCHANGE PARTICIPANTS
REQUESTING NOMINATION OF CONTROL GROUP MEMBERS
June 4, 1986

Dear Steven:

I know you must be excited about your upcoming trip to Japan. A tremendous learning experience awaits you and your fellow participants in the 4-H/Labo Exchange.

This is an important summer in the history of the exchange. For the first time ever, each 4-H participant will take part in a survey to help learn more about the benefits that young people realize from international travel experiences. This survey has been authorized by Labo and the Cooperative Extension Service.

In addition to the 4-H group taking part in the exchange this summer, we will also be surveying another group of 4-H members not traveling to Japan. We need your help in nominating a 4-H friend to be part of this group. On the attached form, please print the name and address of a friend:

- who is your same sex;
- who is approximately your age;
- who has not hosted an international guest; and
- who has not traveled outside of the U.S., Canada or Mexico.

Please return your completed form to me in the enclosed prepaid envelope no later than June 15. I'll send you and your friend each a confidential survey to complete later this month. Thanks for your help with this important project.

Sincerely yours,

Michael H. Stitsworth
Extension Specialist
4-H/Youth

cc: Ms. Shirley McClatchey
APPENDIX E

CONTROL GROUP NOMINATION FORM

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Nomination Form

Labo Research Project

To: Michael Stitsworth - Purdue University

From:

I am nominating a friend to participate in the Labo research project. My friend is my sex, about my same age and has not previously hosted an international guest or traveled abroad.

His/her name and address are listed below:

Friend's Name ___________________________(print or type clearly)

Friend's Address ___________________________(street or route)

________________________________________________________________________

(city) (state) (zip)

(Please return this form by June 15 in the enclosed, prepaid envelope or send to Michael Stitsworth, 4-H Department, AGAD Room 228, Purdue University, W. Lafayette, Indiana 47907. Thanks for your help!)
APPENDIX F

POSTCARD REMINDING EXCHANGE PARTICIPANTS
TO RETURN CONTROL GROUP NOMINATION FORMS
Dear 4-H/Labo Exchange Participant:

Last week you were sent a letter from Purdue University requesting that you nominate a 4-H friend to assist with a study of this summer’s 4-H/Labo Exchange. If our letters crossed in the mail, thanks for returning the nomination form—otherwise, please return the form as soon as possible.

Thanks for your cooperation!

Michael Stitworth  
4-H Department  
AGAD Room 228  
Purdue University  
W. Lafayette, IN 47907
APPENDIX G

LETTER REMINDING EXCHANGE PARTICIPANTS TO RETURN CONTROL GROUP NOMINATION FORMS
Dear 4-H/Labo Participant:

Recently you received a letter from me requesting that you nominate a 4-H friend to assist with a study of this summer's 4-H/Labo Exchange.

It is very important to the success of this project that we receive a nomination form from all 4-Hers traveling to Japan. From this study, we hope to learn more about the benefits that young people realize from international travel experiences. This survey has been authorized by Labo and the Cooperative Extension Service.

In case you've misplaced the materials sent to you earlier, I'm sending a second set with this letter. On the attached form, please print the name and address of a friend:

- who is your same sex;
- who is approximately your age;
- who has not hosted an international guest; and
- who has not traveled outside of the U.S., Canada or Mexico.

Please return your completed form to me in the enclosed prepaid envelope no later than July 10. Thanks for your help with this important project.

Sincerely yours,

Michael H. Stitworth
Extension Specialist
4-H/Youth
APPENDIX H

COVER LETTER FOR MAILING PRETEST MATERIALS TO EXCHANGE PARTICIPANTS WHO NOMINATED A CONTROL GROUP MEMBER
David L  
6351 Nar  
Orangevale, California 95662  

Dear David:  

Thanks for responding promptly to my request that you nominate a 4-H friend to participate in this summer's 4-H/Labo Exchange survey. Later this week, I'll send Chris a letter explaining the project.

Today I'm writing to request that you complete the enclosed one-page questionnaire and personality survey. As a participant in the exchange, your answers are very important. By pooling the responses of all 4-Hers traveling to Japan, we hope to learn more about the benefits that young people realize from international travel experiences. This knowledge will be helpful in planning future exchanges and in raising money to help reduce participant fees.

First, complete the yellow "Participant Information" questionnaire. If you don't know the answers to some of the questions, please ask your folks for help.

Next, in the envelope you'll find a personality survey booklet and a white answer sheet. The directions for completing the survey are on the front of the booklet and at the top of the answer sheet. Please read the directions carefully before you begin. It is not necessary to write your name on the answer sheet. University policy guarantees that your responses will be absolutely confidential. You will need about one hour to complete the survey. If possible, try to find an uninterrupted hour free from distractions.

When you're finished, place the yellow questionnaire, the white answer sheet and the survey booklet in the post-paid envelope and mail them to me. Your completed materials should be returned no later than Friday, June 27.

Thanks for your help! You'll complete another survey in Tokyo just before you leave Japan to return home. I'll look forward to seeing you in Tokyo.

Sincerely yours,

Michael H. Stitsworth  
Extension 4-H Specialist

cc: Ms. Gloria Davis
APPENDIX I

COVER LETTER FOR MAILING PRETEST MATERIALS TO EXCHANGE PARTICIPANTS WHO DID NOT NOMINATE A CONTROL GROUP MEMBER
June 18, 1986

Dear Steven:

I sent you a letter recently explaining this summer's 4-H/Labo Exchange national survey.

Today I'm writing to request that you complete the enclosed one-page questionnaire and personality survey. As a participant in the exchange, your answers are very important. By pooling the responses of all 4-Hers traveling to Japan, we hope to learn more about the benefits that young people realize from international travel experiences. This knowledge will be helpful in planning future exchanges and in raising money to help reduce participant fees.

First, complete the yellow "Participant Information" questionnaire. If you don't know the answers to some of the questions, please ask your folks for help.

Next, in the envelope you'll find a personality survey booklet and a white answer sheet. The directions for completing the survey are on the front of the booklet and at the top of the answer sheet. Please read the directions carefully before you begin. It is not necessary to write your name on the answer sheet. University policy guarantees that your responses will be absolutely confidential. You will need about one hour to complete the survey. If possible, try to find an uninterrupted hour free from distractions.

When you're finished, place the yellow questionnaire, the white answer sheet and the survey booklet in the post-paid envelope and mail them to me. Your completed materials should be returned no later than Friday, June 27. Also, if you have not yet nominated a 4-H friend to participate in the survey, please return your nomination form immediately.

Thanks for your help! You'll complete another survey in Tokyo just before you leave Japan to return home. I'll look forward to seeing you in Tokyo.

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist

cc: Ms. Shirley McClatchey
APPENDIX J

COVER LETTER FOR PRETEST MAILING

TO CONTROL GROUP MEMBERS
Dear Chris:

Your friend David L is traveling to Japan this summer to participate in a 4-H international youth exchange. All 4-Hers involved in the exchange are taking part in a nationwide survey to learn more about the benefits that young people realize from international travel.

We are also surveying a group of 4-Hers who are not traveling to Japan. David suggested you might be willing to assist with this task. I'm writing to ask you complete the enclosed one-page questionnaire and personality survey. Your answers are very important. By pooling the responses of all 4-Hers, we hope to learn more about the benefits that young people realize from international travel. This knowledge will be helpful in planning future exchanges and in raising money to help reduce fees for future participants—perhaps you!

First, complete the yellow "Participant Information" questionnaire. If you don't know the answers to some of the questions, please ask your folks for help.

Next, in the envelope you'll find a personality survey booklet and a white answer sheet. The directions for completing the survey are on the front of the booklet and at the top of the answer sheet. Please read the directions carefully before you begin. It is not necessary to write your name on the answer sheet. University policy guarantees that your responses will be absolutely confidential. You will need about one hour to complete the survey. If possible, try to find an uninterrupted hour free from distractions.

When you're finished, place the yellow questionnaire, the white answer sheet and the survey booklet in the post-paid envelope and mail them to me. Your completed materials should be returned no later than Friday, June 27.

Thanks for your help! I'll ask you to complete a similar survey in late August and again in early December. At that time, you'll receive a gift from the National 4-H Supply catalog to thank you for your time.

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist
APPENDIX K

POSTCARD REMINDER TO RETURN

PRETEST MATERIALS
Dear 4-H Member:

Recently you were sent a survey to complete as part of a study of this summer's 4-H/Labo Japanese Exchange. As of this date, we have not received your completed materials by return mail.

If your completed survey and this postcard crossed in the mail, thanks for your prompt response!—otherwise, please complete the survey and return the prepaid survey packet as soon as possible.

Thanks for taking time out of your busy schedule to assist with this project. Your help is appreciated!

Michael H. Stitsworth
4-H Department
AGAD Building
Purdue University
W. Lafayette, IN 47907
APPENDIX L

COVER LETTER MAILING POSTTEST MATERIALS

TO CONTROL GROUP MEMBERS
Dear Tyler:

Thanks for taking time earlier this summer to complete a survey as part of the national 4-H project to study the benefits of international youth exchanges. Your friend Steven A will be returning to Missouri within the next few days. On August 19 in Tokyo, Steven and the other 4-H members will once again complete the same survey that you completed earlier.

It is very important that you also complete and return the survey again at this time. Why is it necessary to complete the survey again? We'll pool the responses of all 4-Hers and study how the responses have changed over time.

In the envelope you'll find a survey booklet and a white answer sheet. The directions for completing the survey are on the front of the booklet. It is not necessary to write your name on the answer sheet. University policy guarantees that your responses will be absolutely confidential.

When you're finished, place the white answer sheet and the survey booklet in the postage-paid envelope and mail them to me. Your completed materials should be returned no later than Wednesday, August 27.

Thanks for your help! I'll contact you one last time in early December. At that time, you'll receive a gift from the National 4-H Supply catalog to thank you for all your time.

Have a good school year!

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist
APPENDIX M

POSTCARD REMINDING CONTROL GROUP MEMBERS TO RETURN POSTTEST MATERIALS
Dear 4-H Member:

Recently you were sent a survey to complete as part of a study of this summer's 4-H/Labo Japanese Exchange. As of this date, we have not received your completed materials by return mail.

If your completed survey and this postcard crossed in the mail, thanks for your prompt response—otherwise, please complete the survey and return the prepaid survey packet as soon as possible.

Thanks for taking time out of your busy schedule to assist with this project. Your help is appreciated!

Michael H. Stitworth
4-H Department
AGAD Building
Purdue University
W. Lafayette, IN 47907
APPENDIX N

COVER LETTER FOR MAILING NEW SET OF POSTTEST MATERIALS TO CONTROL GROUP NON-RESPONDENTS
Dear Sarah:

Late last month, I sent you a survey to complete as part of the national 4-H project to study the benefits of international youth exchanges. As of this date, your materials have not been returned.

No doubt, you're busy with school and have better things to do! But you're part of a vitally important group that will help tell us to what extent personality changes over time can be caused by factors other than international travel. Unless we have your responses a second time, the first survey you completed earlier in the summer will not be of use to us. So we hope you'll help again now.

In the envelope you'll find a survey booklet and an answer sheet. The directions for completing the survey are on the front of the booklet.

When you're finished, place the answer sheet and the booklet in the postage-paid envelope and mail them to me. Your completed materials should be returned no later than Friday, September 26.

Thanks for your help! If you'll return your materials now, we will not contact you again until early December. At that time, you'll receive a gift from the National 4-H Supply catalog to thank you for your time.

Have a good school year!

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist
APPENDIX O

COVER LETTER AND ENCLOSURE FOR MAILING POST-POSTTEST MATERIALS TO EXCHANGE PARTICIPANTS WHO RETURNED ALL PREVIOUS MATERIALS
Dear Tyler:

Thanks for your help! To date, both you and Mike L have returned all the materials sent to you as part of the national Labo exchange research project.

It's been over four months since you left home for Japan. As was indicated to you in Tokyo, you are now being contacted one last time to complete your part in the project.

We're asking that you complete the enclosed survey a third and final time to help us conclude our research. It is necessary to complete the same survey again because we're interested in how the group's responses may have changed over time. Your completed survey should be returned no later than December 12. Remember that all responses are confidential.

To thank you for your help, you'll be sent a free gift selected from the National 4-H Supply catalog as soon as your completed materials are received. To receive your gift, just complete the coupon enclosed and include it in the enclosed postpaid envelope.

Thanks again for your help. Happy Holidays!

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist

cc: Mr. John Aylsworth
Please send the FREE GIFT from the National 4-H Supply Catalog to:

Name: ________________________

Address: ________________________

______________________ Zip
APPENDIX P

COVER LETTER FOR MAILING POST-POSTTEST MATERIALS TO EXCHANGE PARTICIPANTS WHO DID NOT RETURN ALL PREVIOUS MATERIALS
Christopher A
Rt. 1
Guide Rock, Nebraska 68942

Dear Christopher:

Thanks for your help in returning the materials sent to you as part of the national Labo exchange research project.

It's been over four months since you left home for Japan. As was indicated to you in Tokyo, you are now being contacted one last time to complete your part in the project.

We're asking that you complete the enclosed survey a third and final time to help us conclude our research. It is necessary to complete the same survey again because we're interested in how the group's responses may have changed over time. Your completed survey should be returned no later than December 12. Remember that all responses are confidential.

To thank you for your help, you'll be sent a free gift selected from the National 4-H Supply catalog as soon as your completed materials are received. To receive your gift, just complete the coupon enclosed and include it in the enclosed postpaid envelope.

Thanks again for your help. Happy Holidays!

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist

cc: Dr. John Orr
APPENDIX Q

COVER LETTER FOR MAILING POST-POSTTEST MATERIALS TO CONTROL GROUP MEMBERS
December 2, 1986

Tyler J
NO28 University
Columbia, Missouri  65203

Dear Tyler:

Thanks for your help in returning the materials sent to you as part of the national 4-H/Labo exchange research project.

It's been over four months since I first contacted you. Your responses since then have been very helpful. You are now being contacted one last time to complete your part in the project.

We're asking that you complete the enclosed survey a third and final time to help us conclude our research. It is necessary to complete the same survey again because we're interested in how the group's responses may have changed over time. Your completed survey should be returned no later than December 12. Remember that all responses are confidential.

To thank you for your help, you'll be sent a free gift selected from the National 4-H Supply catalog as soon as your completed materials are received. To receive your gift, just complete the coupon enclosed and include it in the enclosed postpaid envelope.

Thanks again for your help. Happy Holidays!

Sincerely yours,

Michael H. Stitworth
Extension 4-H Specialist
APPENDIX R

POSTCARD REMINDER TO RETURN

POST-POSTTEST MATERIALS
Dear 4-H Member:

Recently you were sent a survey to complete as part of a study of last summer's 4-H/Labo Japanese Exchange. As of this date, we have not received your completed materials by return mail.

If your completed survey and this postcard crossed in the mail, thanks for your prompt response—otherwise, please complete the survey and return the prepaid survey packet as soon as possible. We'll send you a free gift from the National 4-H Supply catalog by return mail.

Thanks for taking time out of your busy schedule to assist with this project. Happy Holidays!

Michael H. Stitsworth
4-H Department
AGAD Building
Purdue University
West Lafayette, IN 47907
APPENDIX S

LETTER REMINDER TO RETURN
POST-POSTTEST MATERIALS
To: Selected 4-H Members
From: Michael H. Stitsworth - Extension Specialist, 4-H/Youth
Date: December 31, 1987
RE: Research Project Materials

As of today, we have not received the completed research project materials which were sent to you earlier this month. I know that the holidays are a busy time, and finding time to complete extra tasks is sometimes difficult.

Now that the holidays are almost over, would you please take time to complete the questionnaire and return it to our office for processing? We're hoping to receive all replies as soon as possible so that we can begin studying the results of our research. Don't forget to return the coupon which entitles you to a free gift from the National 4-H Supply Catalog.

Thanks in advance for your time. Happy New Year!
APPENDIX T

COVER LETTER FOR MAILING NEW SET OF POST-POSTTEST MATERIALS TO EXCHANGE GROUP NON-RESPONDENTS
January 14, 1987

Bradley Y
Rt. 1
Mears, Michigan 49436

Dear Bradley:

In early December I sent you a questionnaire to complete as part of the national 4-H/Labo research project to learn more about the benefits of international youth exchange. As of today, I have not received your completed materials. In the event that you did not receive the earlier mailing, I am sending you another questionnaire for completion.

Your final response is critical to the success of the study, and will assist us in structuring future exchanges with Japan and other countries.

Would you take some time to complete the materials tonight? I need your questionnaire returned no later than January 25. When I receive your materials, you'll be sent a free gift from the National 4-H Supply Service catalog. After that, you will not be contacted again.

Thanks for your help.

Sincerely yours,

Michael H. Stitsworth
Extension 4-H Specialist
APPENDIX U

COVER LETTER FOR MAILING NEW SET OF POST-POSTTEST MATERIALS TO CONTROL GROUP NON-RESPONDENTS
January 14, 1987

Darcilyn D
5837 S.
Middleton, Michigan 48856

Dear Darcilyn:

In early December I sent you a questionnaire to complete as part of the national research project to learn more about the benefits of international youth exchange. As of today, I have not received your completed materials. In the event that you did not receive the earlier mailing, I am sending you another questionnaire for completion.

Although you did not travel to Japan, your responses are very important since they allow us to compare the differences between 4-H'ers who traveled to Japan and those who did not. These differences are very critical to the success of the study.

Would you take some time to complete the materials tonight? I need your questionnaire returned no later than January 25. When I receive your materials, you'll be sent a free gift from the National 4-H Supply Service catalog. After that, you will not be contacted again.

Thanks for your help.

Sincerely yours,

Michael H. Stitworth
Extension 4-H Specialist
VITA

Michael Henry Stitsworth was born in Fort Smith, Arkansas on July 21, 1952 where he attended both primary and secondary school. In 1970, he entered the University of Arkansas at Fayetteville where he was graduated with a bachelor's degree in education in 1975. After graduating, he taught earth science at Siloam Springs (Arkansas) Junior High for three years and was assistant principal for one year at Siloam Springs High School. While teaching, he began graduate work at the University of Arkansas where he completed a master's degree in education in 1976 and an education specialist degree in 1978. In 1979, he began working for the University of Arkansas Cooperative Extension Service as a 4-H program specialist. He is currently an assistant professor in the Department of 4-H Youth at Purdue University where he is responsible for 4-H international, teen leadership, and law-related education programs. He is a member of Phi Delta Kappa.