

**IMPACT OF YOUTH PROGRAM MEMBERSHIP ON YOUTH  
PROGRAM LIFE SKILLS DEVELOPMENT, YOUTH PROGRAM  
EXPERIENCES, ADULT COMMUNITY PARTICIPATION,  
AND PERSONAL CHARACTERISTICS RELATED TO  
4-H VOLUNTEERISM**

A Dissertation

by

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Submitted to the Graduate College of  
Texas A&M University  
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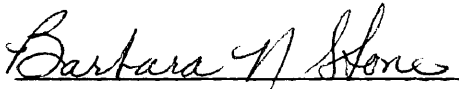
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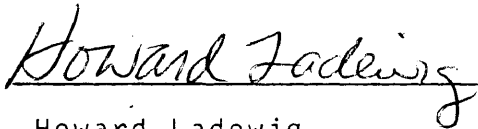
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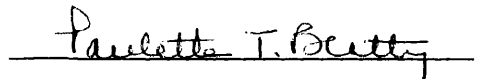
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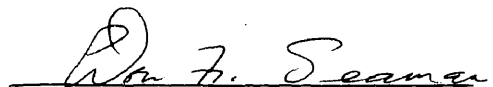
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## ABSTRACT

**Impact of Youth Program Membership on Youth Program Life Skills Development, Youth Program Experiences, Adult Community Participation, and Personal Characteristics Related to 4-H Volunteerism. (August 1987)**

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M.S., Texas A&M University

Chair of Advisory Committee: Dr. Barbara N. Stone

It was the general purpose of this study, a part of a nationwide effort entitled The 4-H Alumni Study (Ladewig and Thomas, 1987) to investigate the variables (youth life skills, personal characteristics, and community participation) that influence 4-H alumni to become 4-H volunteer leaders. A telephone survey was developed to measure respondent perceptions of their 4-H and/or youth program experience.

A path model was developed for 4-H alumni, non 4-H alumni, 4-H alumni who belonged to no other youth organizations and 4-H alumni who belonged to both 4-H and another youth program membership, and another youth organization.

Standardized regression coefficients were used for comparisons between different variables within a causal model applied to a mutual group of respondents.

The following is a summarization of the major multiple regressions findings: (1) youth leadership programs (4-H

and others) are effective/visible means of developing/ contributing/responsible/ involved adult members of a community, (2) being a club officer or committee member develops youth life skills, (3) attending youth program club meetings and participating in a community service project develops competency and contributory life skills, (4) those 4-H alumni who developed youth life skills tended to enter the program at an earlier age and have a longer period of membership, (5) for those who have been involved in the 4-H program, 4-H program experiences developed competency life skills while sources of 4-H project information tends to developed contributory and social life skills, (6) those 4-H alumni who developed competency life skills tended to participate in community organizations as an adult, (7) those 4-H alumni who develop coping and contributory life skills tended to use the services of the Cooperative Extension Service, and (8) the interaction with a county Extension agent is a critical variable in the development of interpersonal and social life skills in 4-H youth.



## ACKNOWLEDGEMENTS

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## CHAPTER I

### INTRODUCTION

The transition to adulthood is a process where youth learn to be responsible and participating members of the community. Keniston (1975, p. 4) described youth as a "new" stage in life, with its central characteristic being the tension between selfhood and the existing social order. This tension is created by denying youth an immediate role in our society, prolonging their dependence, undermining their self-esteem, and forcing them to prepare for a nebulous future, without allowing them to participate here and now (Kohler, 1981, p. 426). As the church and the immediate family's role in developing youth decreased, the responsibility fell on the school. The traditional approach to school education stressed the student's role to passively sit and to commit to memory the ideas thought important. This purely cognitive style of learning rewarded obedience and docility, and punished individual initiative. The students were asked to master ideas, concepts, skills, and information to be used in the future. Thus, the traditional school programs were faced with the task of

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The citations on the following pages are consistent with the style of Adult Education Quarterly: A Journal Of Research And Theory.

developing youth into adults with educational methods that were passive and aimed toward the future.

## **PROGRESSIVE EDUCATION**

Progressive educators, led by John Dewey, advocated a different approach to the teaching of youth. Dewey wrote (Kohler, 1981, p. 426):

The idea of using the present to get ready for the future contradicts itself. It omits, and even shuts off the very condition by which a person can be prepared for his future. We always live at the time we live and not at some other time, and only by extracting at present time the full meaning of each present experience are we prepared for doing the same thing in the future. This is the only preparation which in the long run amounts to much.

Dewey (1916, p. 6) believed that education was a necessity of life and that the "... measure of the worth of any social institution is its effect in enlarging and improving experience". William James (1910) and John Dewey (1916) suggested that a learner's experience should enhance his/her growth. To Dewey, "... social educational experiences involves, above all, continuity and interaction between the learner and what is learned (1938, p. x)." Furthermore, "... we never educate directly, but indirectly by means of the environment (Dewey, 1916,

p. 19) .... the environment consists of those conditions that promote or hinder, simulate, or inhibit the characteristic activities of a living being" (Dewey, 1916, p. 11). "Education is a fostering, a nurturing, a cultivating process" (Dewey, 1916, p. 10).

## **EXPERIENTIAL EDUCATION**

Conrad and Hedin (1981, p. 2) defined experiential education as "educational programs offered as an integral part of the general school curriculum, but taking place outside the conventional classroom, where students are in new roles featuring significant tasks with real consequences, and where the emphasis is on learning by doing with associated reflection". Conrad and Hedin (1981), in one of the largest evaluations of experiential learning, found that students entered into more relationships with adults and experienced more positive attitudes towards them; developed more responsible attitudes and behaviors; valued community participation more highly; developed more positive attitudes toward careers; positively affected self concepts and self esteem, in relation to others; and a majority learned more and developed more empathy.

## LIFE SKILLS DEVELOPMENT

The idea of life skills education began appearing in the late 1960's and early 1970's. Working with the Training Resources for Youth project of the New York YMCA, Adkins and Rosenberg (1965) developed a life skills education program. The original definition of life skills was set forth by Hims1 (1972,) as life skills "... means problem solving behaviors appropriately and responsibly used in the management of personal affairs" (p. 13).

Mullen (1981, p. 35) identified a "common core of needs" which were: (1) interpersonal skills, (2) problem-solving skills, and (3) knowledge of self-worth. Noren-Hebeisen and Hedin (1981, p. 28) established "three variables that seem to occur most consistently in relation to problem behavior: (1) stress, (2) skill deficiencies, and (3) situational constraints". David and Carol Weatherford (1985, p. 16-19) somewhat differently categorized these life skills variables as:

1. Competency
  - A. Achievement
  - B. Learning
  - C. Economic Input
2. Coping
  - A. Parent-Child Relationship
  - B. Social-Psychological
  - C. Self Concept
  - D. Modeling of Adults
  - E. Stress Management
3. Contributory
  - A. Prosocial
  - B. Friendship Networks
  - C. Leadership

Weatherford and Weatherford (1985, p. 16), defined competency life skills as developing skills and knowledge about self and the world around them; coping life skills as developing identity through the development of interpersonal skills; and contributory life skills as increasing sharing and social contribution skills which allow self and others to overcome situational and personal barriers.

### **YOUTH DEVELOPMENT PROGRAMS**

Out-of-school youth development programs have been responsible for providing additional educational experience for youth for the last 80 years. Kleinfeld and Shinkwin (1984) indicated that traditional youth programs provided many of the experiences educators found lacking in public schools: (1) closer contact between youth and adults from the community, (2) the opportunity to take an active role, (3) experience in doing something of benefit for the community, and (4) the opportunity to learn practical, non-academic skills. The Panel on Youth of the Presidents' Science Advisory Committee (Coleman, 1974) recommended the kinds of experiences typical of youth experiential learning programs.



## 4-H Youth Program

The 4-H program is the largest out-of-school youth development program in the United States. It is administered on the federal level by the United States Department of Agriculture (U.S.D.A.) - Extension Service (ES) and on the state level by the state Land Grant University; both cooperating with local level government, to bring the 4-H program to youth 9 - 19 years of age. The 4-H Program developed around the philosophy of its motto "learn-by-doing." This philosophy of "learn-by-doing" is founded in Dewey's experiential learning. The mission of the 4-H program "... is to help young people to become self-directing, productive, and contributing members of society." (Extension Committee on Organization and Policy, 4-H In Century III, 1976, p. 3). The objectives of the 4-H program were further defined in 4-H In Century III (Extension Committee on Organization and Policy, 1976, p. 3) as helping youth to:

1. Develop inquiring minds and an eagerness to learn.
2. Learn practical skills, develop competencies, and acquire knowledge.
3. Strengthen abilities to make intelligent decisions and solve problems.
4. Acquire positive attitudes toward self and a feeling of self-worth.
5. Develop their potential by seeking and acquiring educational and vocational experiences.

6. Improve skills in communication and self-expression.
7. Develop effective interpersonal relationships with adults and other youth.
8. Maintain optimum physical and mental health.
9. Develop concern for involvement in community and public affairs.
10. Increase leadership capabilities.
11. Develop socially acceptable behavior, personal standards, and values for living.
12. Develop abilities to perform as productive, contributing citizens.
13. Use time wisely in attaining a balance in life (work, leisure, family, community, and self).

The objectives of 4-H have been defined as life skills (Extension Committee on Organization and Policy, 4-H In Century III, 1976, p. 3). These life skills objectives of 4-H are accomplished by bringing youth together in local community clubs so they can develop essential life skills through projects in agriculture, home economics, and related subjects.

4-H then is an experiential youth development program whose goal is the development of youth life skills in youth 9-19 years of age. The expected results of experiential out-of-school youth developmental programs are: (1) more relationships with adults and experience more positive attitudes towards them, (2) develop more responsible attitudes and behaviors, (3) value community

participation more highly, (4) develop more positive attitudes toward careers, (5) positively affected self concepts and self esteem, (6) a gain in knowledge and skills, and (7) develop more empathy.

## **DEFINITIONS**

Experiential education - informal out-of-school youth educational programs offered to supplement the social, psychological, and intellectual development of youth, where students are placed in new roles featuring significant tasks with real consequences and where the emphasis is on learning by doing with associated reflection.

Youth life skills refers to development through actual experiences in out-of-school youth programs. Youth life skills in this study are defined as follows: (1) competency life skills (developing skills and knowledge about self and the world around them); (2) coping life skills (developing identity through the development of interpersonal skills); and (3) contributory life skills (increasing sharing and social contribution skills which allow self and others to overcome situational and personal barriers).

## **STATEMENT OF THE PROBLEM**

Presently, the magnitude of the impact of the 4-H program

on 4-H members is not known. The questions that need answering to are as follows:

1. What is the 4-H experience?
2. What results are produced from each 4-H experience and are these the intended results?
3. What are the expected participant results from different groupings of 4-H experiences?
4. How successful is the 4-H program in developing life skills in 4-H members?
5. Do 4-H members become contributing members of society?
6. What are the variables (life skills, personal characteristics, and community participation traits) that influence 4-H alumni to become 4-H volunteer leaders.

## **OBJECTIVES**

This study reviewed the theories, historical, psychological, philosophical, social, and intellectual foundations of experiential education and life skills development as they relate to the 4-H program. It was the general purpose of this study to investigate the variables (youth life skills, personal characteristics, and community participation) that influence 4-H alumni to become 4-H volunteer leaders. The present study attempted to formulate causal models to estimate: (1) the magnitude of the affect youth organization participation has on volunteering as a 4-H leader, (2) identify factors influencing 4-H leader participation, and (3) identify 4-H

members who have a greater likelihood of future volunteer adult leader participation.

## **PURPOSE OF STUDY**

Finding the answers to the questions posed in the Statement of the Problem would allow staff responsible for the 4-H program to:

1. State what 4-H can do and to describe its successes.
2. Place emphasis on long term programming.
3. Develop strategies to use to reach clientele with more effective programming.
4. Analyze the effectiveness of the 4-H experiential (learn-by-doing) experience.
5. Identify the life skills developed in current 4-H leaders who are 4-H program alumni.
6. Identify the affect the 4-H experience has on future community participation by 4-H alumni.
7. Identify the characteristics of 4-H volunteer leaders who are 4-H alumni.

The present study attempted to measure the direct and indirect affects 4-H life skills (competency, coping, and contributory) education has on 4-H volunteer leaders who are 4-H program alumni. It also attempted to determine the personal characteristics and community participation traits of 4-H volunteer leaders who are 4-H program alumni.

## CHAPTER II

### THEORETICAL ORIENTATION

#### EXPERIENTIAL EDUCATION

##### Historical Development

##### The Progressive Education Movement

Experiential education has a rich history. Experiential education developed as part of the Progressive Educational Movement in the 1870's. It's history, development and acceptance is so intertwined with progressive education that a review of progressive education is essential in understanding experiential education.

The origin of the progressive educational movement lies in the rationalist, empirical, and scientific thought that developed first in Europe; as reason and feeling began to replace tradition and authority as the chief ways of arriving at truth (Elias and Merriam, 1980, p. 46). The leading European proponent was Jean Jacques Rousseau, who proposed that all learning until the age of twelve should come from experience through contact with natural objects, the learning of manual skills, and the incorporation of play into educational experiences (Elias and Merriam, 1980, p. 46).

The progressive education movement became a response to

the "schools and teachers, who dehumanized, immobilized, and atomized children" (Kraft, 1973, p. 20). Progressive educators challenged the traditional teaching methods based on lectures, memorization, and mechanical skills. As a result, the 1880's and 1890's brought an emphasis for comprehensive progressive schools.

At this time, the United States was undergoing great social, economic, and political changes, brought on by mass immigration and industrialization. As the pressure for change became greater, the public cried for educational reform. Businessmen and labor unions were insisting that the school assume the classical functions of apprenticeship; settlement workers and municipal reformers were vigorously urging instruction in hygiene, domestic science, manual arts, and child care; patriots were calling for Americanization programs; and agrarian publicists were pressing for a new sort of training for country life, that would give youngsters a sense of the joys and possibilities of farming (Cremin, 1961, p. 116-117).

The progressive education movement reached its maximum influence on American education during the years prior to World War I, as progressive schools increased both in numbers and quality. The 1920's began the decline of the progressive education movement, as it fragmented into special interests and various submovements. The

Depression of the 1930's spurred a reversal of the laissez-faire -- child oriented trend, while following World War II, the country's conservative mood discouraged the support of progressive ideals (Adams and Reynolds, 1981, p. 22). The 1960's and 1970's brought back the progressive education movement's ideals in a variety of new shapes and forms.

It should be noted that the progressive education movement should not be confused with the Progressive Education Association, a much larger extension of the progressive educational movement. The Progressive Education Association was formalized in 1919 and discontinued in 1957.

### Stages of the Progressive Education Movement

Elias and Merriam (1980, p. 49) identified three distinct stages of the progressive education movement. The writings of John Dewey, the most important American education philosopher and the leading progressive and experiential educator, reflected these three stages of the progressive education movement. The earliest stage of the progressive education movement was concerned with developing a child-centered approach to education. This approach followed Rousseau's philosophy and was also influenced by Johann Pestalozzi and Friedrich Froebel.



The principle ideals of this phase are represented by Dewey's early work of School and Society (1900) and The Schools Of Tomorrow (1915). Dewey (1900) suggested introducing manual training into the curriculum and that efforts should be made to begin the educational process with the needs and interest of the child. Thus, the primary task of education was to develop the potential of the child. "It would be most desirable for the school to be a place in which the child should really live, get a life-experience in which he should delight, and find meaning for its own sake" (Dewey, 1900, p. 70).

The second stage of the progressive educational movement, advocated that education had a role to play in social reform and reconstruction. In Democracy and Education, (1916) Dewey placed education at the very heart of social reform. Dewey believed "education would flourish if it took place in a democracy ... there was a need to develop a social consciousness in individuals ... as a democratic society was committed to change" (Dewey, 1916, p. 401). Therefore, a democratic education would produce a society that is constantly in a state of greater growth and development (Elias and Merriam, 1980, p. 50).

The highest ideal of the progressive education movement was education for democracy. Dewey (1916, p. 115) defined democracy as "the extent to which the interests of a group are shared by all of its members and the fullness and

freedom with which it interacts with other groups."

For Dewey (1916, p. 377), social reform was accomplished through the democratic concepts of:

1. The dependence of growth of the mind upon participation in shared activities.
2. The influences of the physical environment on the development of culture.
3. The necessity of utilizing individual differences in desire and thinking to produce changes in society.

However, the tasks of the schools were to educate individuals in democratic values, thus the school was only indirectly involved in social change (Elias and Merriam, 1980, p. 50).

The third stage of the progressive education movement is characterized by the concept of experimentalism. In Experience and Education (1938), Dewey criticized the weakness of the child-centered approach and advocated a position that avoided the extremes of the child-centered and social action themes. Dewey suggested experimentalism moral principles, to guide education (Elias and Merriam, 1980, p. 50):

1. There is a need for the guidance and direction of learning that makes the teacher more important than in the traditional education.
2. The concept of experience is restricted to those experiences that are truly educative.
3. Individuals achieve freedom as they master the tools of learning that are available.

The ideals of the progressive educational movement can be used to understand and direct education's role in social change (Holt, 1967). Therefore, it is not surprising that Dewey's ideas returned in the 1960's and 1970's; a period of social and political change.

### **The Development Of Experiential Education**

With it's development so intertwined with the progressive educational movement, it is difficult to map a historical trail that belongs solely to experiential education. Progressive education was constantly changing, as evident in the three stages identified above. There was no main stream movement. Educators and philosophers tended to take progressive education in the direction that their interest led. This eclectic makeup resulted in a lack of a unified identity (pluralism), which caused a great deal of confusion and ultimately the downfall of the movement. Experiential education's roots can be traced to almost any place or time. However, using experiential education in a formal educational setting can be traced backed to a period between the 1880's and 1900. The use of experiential learning can be traced back to philosophers, psychologists, and social reformers. Conrad and Hedin (1981, p. 3) stated that experiential education was first discussed not by an educator but by Jane Addams (a social reformer) who chastised education for its "remoteness from

life"; William James (psychologist and philosopher) who attacked the "spectator theory of knowledge" and argued that meaningful ideas are those that make concrete differences in actual life; and John Dewey (philosopher, psychologist, etc.) who refined James ideas into a theory of experience and urged its application to the practice of teaching and the structure and function of schools.

The earliest advocates of experiential education were the agrarian reformers and the populists of the 1880's and 1890's who called for formal education that featured "practical knowledge .... from the various sources that are open to him in his daily life" (Welter, 1962, p. 162). The main educational impact of the agrarian/populist/naturalist movement(s) was limited to developing after-school activities and to the establishment of boys' and girls' agricultural and naturalist clubs (Conrad and Hedin, 1981, p. 4). Thus, the emphasis for informal out-of-school youth experiential programs in the United States can be traced back to the agrarian/populist/naturalist movement(s) during the late 1880's and early 1890's.

The beginning of experiential education ("activity learning") in the formal school setting can be traced to centers in the late 1890's, which used the ideas of Pestalozzi and Froebel (Conrad and Hedin, 1981). These earliest efforts were isolated attempts, with young

children to promote effective learning, through doing. One of the first major attempts at experiential education in the formal school setting was at Francis W. Parker's, Cook County Normal School in Chicago. Dewey considered Parker as the 'father of progressive education' and the first American leader in progressive education" (Cremin, 1961, p. 129).

Parker's educational theory was based on the idea of "moving the child to the center of the educative process and to interrelate the subjects of the curriculum in such a way as to enhance their meaning to the child" (Cremin, 1961, p. 131). At Cook County Normal School, art was made a central enterprise of the school; science was begun in the form of nature study; mathematics was frequently introduced in connection with laboratory work; geography began with first-hand knowledge of the surrounding countryside; and music, drama, hygiene, and physical education; all began with what had meaning to the children themselves (Cremin, 1961, p. 133). "The job of the teachers was to start where the children were and subtly lead them into the several fields of knowledge, extending meanings and sensitivities along the way" (Cremin, 1961, p. 133).

The most famous formal experiential education school was John Dewey's Laboratory School, established in 1896. The school was designed to test Dewey's theories and their

implications. According to Dewey, the purpose of the school was "... to discover in administration; selection of subject-matter; methods of learning; teaching; and discipline, how a school could become a cooperative community, while developing in individuals their own capacities and satisfying their own needs" (Mayhew and Edwards, 1936, p. xv-xvi).

Experiential education in the years leading up to World War I mirrored the ideals of the progressive education movement. The emphasis was on building curriculum around the activities of mankind. After the war and through the 1920's, the emphasis was on the new child-centered psychology and self expressionism.

The war years produced another proponent of experiential educational theory. William Kilpatrick, a Dewey disciple, wrote a theoretical analysis called The Project Method (1918). Kilpatrick emphasized activities based on the child's goals and "... insisted that activities be 'purposeful;' stressed group over the individual effort, and especially for older youth; located the activity in the social environment outside the school" (Conrad and Hedin, 1981, p. 6). By emphasizing purposeful activity (activity consistent with the child's own goals), Kilpatrick, sought to enhance both direct and associative learning. In a social environment, Kilpatrick, believed

"... he could facilitate certain ethical outcomes..."; while in a "... curriculum reorganized as a succession of projects..." would be the "... best guarantee of sharpened intellectual acumen and enhanced moral judgment" (Cremin, 1961, p. 217).

In the 1930's, experiential education in the formal schools continued to follow the progressive education movement focus on the problems of the community as the basis of curriculum and problem solving as the major student activity (Conrad and Hedin, 1981, p. 6).

Improving on or changing the community was seen as a result of education, not as an integral part of it.

Despite an emphasis by the formal school on community participation by youth, most of the community service projects were sponsored by non-school clubs and organizations. The school sponsored community activities were usually extra-curricular or one-time-only special events (Conrad and Hedin, 1981, p. 7). Conrad and Hedin (1981, p. 7) reported that "... there's little evidence that many schools were promoting youth participation as either a social or educational activity." Perhaps some of this lack of youth participation at the formal school level could be explained by schools in the north and urban areas, which regulated these types of curriculum projects to out-of-school events.

After World War II, the progressive education movement was

decreasing in its influence on American education, while experiential education was being revitalized by Charles Prosser of the Dunwoody Institute in Minneapolis. Prosser (a proponent of vocational education) called for "youth of secondary school age to receive the life adjustment training they needed" (United States Office of Education, Life Adjustment Education for Every Youth, n.d., p. 15). The Commission on Life Adjustment Education for Youth was created and reported that "...life-adjustment education was concerned with 'physical, mental, and emotional health'..." and it recognized "... the educational value of responsible work experience in the life of the community..."; as well as "... the importance of personal satisfactions and achievements for each individual within the limits of his abilities" (First Commission on Life Adjustment Education for Youth, 1951, p. 32-33). "Life Adjustment curricula featured functional experiences in practical arts, health, home and family life, physical fitness, civic competence, and war experience" (Conrad and Hedin, 1981, p. 8). Life adjustment education became very popular in the 1950's, as school systems throughout the nation adopted its use. However, it quickly disappeared under the increasing conservative mood of the post-war United States.

The 1950's also saw the formation of the largest community



and experience-based program, the Citizenship Education Project (CEP) stressed participatory skills and direct community experience for youth (Conrad and Hedin, 1981, p. 8). Butts (1977, p. 64) reported that CEP included "... hundreds of laboratory practices that detailed how teachers and students could engage in action-oriented problem-solving in the schools and community." CEP like Life Adjustment Education, ran into the general conservative and apathetic mood of the fifties. Two important forms of experiential learning emerged in the 1960's and continue today: (1) cross-cultural - where students traveled to live in different cultures and (2) service-learning - which involved students in community service activities, not only learning about their community but also about their capabilities as agents for change (Little, 1981, p. 6). Service-learning quickly expanded as college students began to volunteer their time and resources to the local community. This phenomenon soon reached the formal secondary school. The National Association of Secondary School Principals (1974) reported over a thousand "action learning" programs in existence. By the mid-to-late 1970's, experiential education was clearly back on track, as pressures from outside of the formal school establishment began to emphasize learning by experience. Conrad and Hedin (1981, p. 10) reported the pressures as: (1) "... students demanding relevant action;

(2) criticism of the social role of schools; and (3) changes in fundamental social structures (family, school, church, and the work place) were in disequilibrium, with the functions of each no longer very comfortably defined or differentiated; which prompted many educators to question the adequacy of prevailing methods for helping students meet the social and personal challenges facing them."

### **William James' Influence on Experiential Education**

William James was one of this country's most prominent psychologists and philosophers in the early years of the progressive education movement. While James was not an educational philosopher, he helped lay the foundation for experience-based education. James refined Charles Sanders Peirce's ideas of pragmatism into understandable terms. Pragmatism is a philosophy that "... seeks to examine traditional ways of thinking and doing, and where possible and desirable, to reconstruct our approach to life more in line with the human needs of today" (Ozmon and Craver, 1986, p. 98). The philosophy of pragmatism is a central concept in experiential education. John Dewey took these pragmatic ideas and applied them to education. In 1899, James wrote his only book that dealt specifically with education, Talks To Teachers On Psychology: And To

Students On Some Of Life's Ideals. James' philosophy contains 11 fundamental principles to experiential education. Donaldson and Vinson (1979, p. 7-8) summarized these principles:

1. One learns best by his/her own activities
2. Interest is of signal importance to learning
3. Sensory experience is basic
4. Effort and vigor make for good education
5. Education modifies behavior
6. Good education is holistic
7. Imitating exemplary behavior is sound learning
8. Love and understanding are important to learning
9. Effective learning is interdisciplinary
10. Respect for individual differences is essential
11. Sound education is specific.

### **John Dewey's Influence on Experiential Education**

#### **The Development of John Dewey's Experiential Educational Philosophy**

John Dewey can be called the father of experiential education and the chief spokesman of the progressive education movement. Dewey, like the progressive education movement, went through a lifetime of transformation and change as his experiential philosophy evolved. Willaim James had the greatest effect on Dewey's philosophy.

James's The Principles of Psychology (1890) contributed much to the new direction and quality of Dewey's thinking, particularly the idea of an objective psychological theory firmly rooted in evolutionary biology (Cremin, 1961, p. 116-117). James helped clarify for Dewey, the

philosophical basis of the progressive education pragmatism.

Elias and Merriam (1980, p. 47-48) identified the following dimensions of the pragmatic philosophy: (1) it accepts the methods of science for understanding the human person and solving human problems, (2) accepts both the relativism and pluralism of world views, (3) the centrality of human experience, (4) emphasizes the consequences of actions in the determination of truth and goodness, and (5) it emphasizes social reform as a legitimate concern of philosophers. Dewey took the principles of pragmatic thought and developed the philosophical base of experiential education. The pragmatic ideas Dewey used in developing his philosophy of experiential education were: (1) using the scientific method to solve human problems, (2) the dualism between the separation of the human from the natural, (3) "experience is placed in opposition to all authoritarian ways of arriving at knowledge", (4) the idea of growth, and (5) the use of education in the social reform of the community (Elias and Merriam, 1980, p. 48.)

One of the keys to Dewey's development of experiential education was resolving the dualism between the emphasize and the rationalist approach to education. The emphasize approach led by Pierce and Wright and the rationalist lead by James, dominated the methodology of education.

The rationalistic approach saw the goal of education as purely cognitive and not connected or involved with the environment in which the mind existed (Dewey, 1938, p. 17). This inoculation of students with ideas and facts of the past required the students to sit passively and to commit ideas and facts to memory. This approach to education of the young tended to devalue initiative and reward obedience and docility.

The emphasize approach to education elevated the primary aspect of experience to the sole end of education. This approach involved taking the purely empirical element in experience and neglecting the reflective element.

Dewey rejected the idea that education must be based completely upon pure experience or upon cognition.

Education, according to Dewey, must be based upon experience, period, which involves both the physical objects of experience and the cognitive aspects of experience (Dewey, 1916, p. 389).

### **The Components of John Dewey's Philosophy of Experiential Education**

Dewey's philosophy of experiential education included the following components: (1) democracy, (2) reflective thinking, (3) growth, (4) experience, and (5) an interaction with and in the community. For Dewey, these components were critical in the development of an

education for youth that was based on learning through experience.

Similarly with his resolution of dualism, as a graduate student at John Hopkins (1882-84), Dewey became aware of the work of the German philosopher Georg Hegel, subsequently Dewey began to recognize the disorganized character of the Western modern culture, which he traced to a disintegrative individualism. Hegelianism, like all absolutist philosophies, was authoritarian in nature; advocating subordinating the individual to the established state in order to check the disintegrating tendencies of liberalism (Perkinson, 1976, p. 200). John Dewey however, was looking for a nonauthoritarian solution to the problem of social disorganization.

For Dewey, democracy is the solution for social disorganization. Democracy is a form of association, but a different form of association because it is more ethical; it allows for the greatest amount of participation in determining the common good and permits all to participate in the decision making. For Dewey, (Perkinson, 1976, p. 202) democracy offers an individualism of freedom, of responsibility, of initiative to and for the ethical ideal.

The freedom accorded to individuals through education, carries with it responsibility -- the responsibility for

all to be intelligent or reflective. Dewey defined reflective thought as "... active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it, and the further conclusions to which it tends..." (Perkinson, 1976, p. 206 ). The central concept in reflective thinking is the "... operation in which present facts suggest other facts (or truths) in such a way as to induce belief in the latter upon the ground or warrant of the former..." (Perkinson, 1976, p. 206). For Dewey, justification of our beliefs begins with a problem, or a felt difficulty. Perkinson (1976, p. 206) identifies four logically distinct steps in the justification of ones beliefs: (1) location and definition of the difficulty or problem, (2) suggestion of possible solution, (3) development by reasoning of the bearings of the suggestion, and (4) further observation and experiment leading to its acceptance or rejection. "Thinking--reflective thinking" Dewey says (Perkinson, 1976, p. 206), is problem solving. Science, or the scientific method is the method for problem solving or reflective thought (Perkinson, 1976, p. 207).

In Democracy and Education (1916), Dewey professed that the common end for all men is growth. To help people see that growth is the common end of all is the task of education (Perkinson, 1976, p. 208). All societies rely

on education to maintain their continuous existence. Dewey further uses the term growth as a constant reorganizing or reconstruction of experience. In his technical definition of education, Dewey (1916, p. 89-90) states that "... education is the reconstruction, or reorganization of experience which adds to the meaning of experience, and which increases the ability to direct the course of subsequent experience."

In Democracy and Education (1916) Dewey construes experience as the interaction of the self with its environment. The self is active: it has impulses and instincts and purposes, or ends (Dewey, 1916, p. 408). The environment supports, permits, or promotes that activity (Dewey, 1916, p.13). But the environment also, at times, hinders, frustrates, or stops that activity (Dewey, 1916, p. 13). The environment can present us with a problem (Dewey, 1916, p. 13).

These experiences (problems) present us with opportunities for growth. Perkinson (1976, p. 209-10), summarizes Dewey's ideas of experience, environment, and growth:

So long as the environment supports the activity of the self, there is no need to change, to alter behavior. But once it encounters an obstacle, a problem--once its habitual patterns of behavior are no longer adequate--then it must, if it can, develop



new and different ways of behaving, ways that will overcome the obstacle or problem. And the method for overcoming obstacles, the method to solve problems, is the scientific method. Growth consists of problem solving or reflective thinking. It is through the scientific method that we reorganize or reconstruct experience, thereby adding to the meaning of experience; and at the same time we increase our ability to direct the course of subsequent experience.

For Dewey, the schools had to perform the functions previously performed by the community itself. We must transform the school into a community, an embryonic community (Dewey, 1900, p. 43-44). For a school to become a true community the methods of learning and doing must change. Students must engage in "common and productive activity" (Dewey, 1900, p. 28). In his Laboratory School the spirit of cooperation replaced the traditional school spirit of competition. Pupils freely communicated and exchanged ideas--silence wasn't golden; pupils were making and doing or learning by doing (Perkinson, 1976, p. 212).

### **Dewey and Experience**

Dewey distinguished between two different but interconnected aspects of all experience. They are "primary" and "secondary" experience (Hunt, 1981, p. 30).

Primary experience for Dewey refers to the immediate, tangible, and moving world which presents itself to the senses. Dewey refers to primary experiences as "gross macroscopic crude" (Dewey, 1925, p. 6). Primary experience provides the raw materials from which knowledge can begin (Hunt, 1981, p. 30). The primary experience is essentially non-cognitive (Dewey, 1925, p. 23). Primary experience for Dewey, is the starting point but it is not the end point.

Secondary experience (reflective experience) refers to what happens after a primary experience is had (Hunt, 1981, p. 30). Reflective experience takes the data provided by primary experience and refines and makes it precise. Secondary experiences... "explain the primary objects, they enable us to grasp them with understanding, instead of just having sense contact with them" (Dewey, 1925, p. 7).

Dewey (Hunt, 1981, p. 31) used the analogy of a scientist as an example of his primary and secondary experiences:

The scientist takes the data derived from primary experience and reflects upon it. He removes himself from the immediacy of primary experience and reflects upon the information conveyed by the primary experience. The ultimate goal of the secondary experience in science is to take the data and reflect

upon it in such a way as to be able to make predictive statements about future experiences in the form of hypothesis.

### **Dewey's Philosophy of Education Through Experience**

For Dewey, "... all philosophy can be conceived of as the philosophy of education..." (Bernstein, 1967, p. 383-4). Education begins with experience and Dewey rejects the idea that education must be completely based upon primary experience or upon secondary experience. Education, according to Dewey (1916, p. 389), must be based upon experience period, which involves both the primary and the secondary experiences. The central role of experience in education is the (Dewey, 1916, p. 389):

'Acquisition of knowledge' and making 'fruitful connections' with the on going experience of the students. No matter how true what is learned is to those who found it out and in whose experience it functioned, there is nothing which makes it knowledge to the pupils. It might as well be something about Mars or about some fanciful country unless it fructifies in the individual's own life.

Dewey's adaptation of experience as the basis of education gives rise to a central idea in his philosophy of education - the idea of the experiential continuum (Hunt, 1981, p. 32). The ultimate goal of education is to make

an experiential continuum where the process of education, that is how a student learns, is given equal footing with the content of education (Dewey, 1938, p. 20). Education must stress other ideals than the old methods did in order to produce a good student (Dewey, 1938, p. 20). These ideals must include freedom, inquisitiveness, and experiential continuity, as well as the received materials from the past (Hunt, 1981, p. 33). "The philosophy in question is, to paraphrase the saying of Lincoln about democracy, one of education of, by and for experience" (Dewey, 1938, p. 29). Dewey was not only an educational philosopher, but he put his ideas on experience and education to practice in his own school. In the Laboratory School, children studied the occupations of cooking, sewing, carpentry, and gardening. They investigated how people have solved the problems of securing food, clothing, and shelter at times and in different places. Through these real life activities the school became a genuine form of active community life, instead of a place set apart in which to learn lessons. The function of the school was social: to train "... each child of society into membership within such a little community, saturating him with the spirit of service, and providing him with the instruments of effective self direction" (Perkinson, 1976, p. 212).

## **Summary**

Experiential education has a interesting and rich history that parallels the development of progressive education in the United States. This history resulted in the evolution of three distinct stages: (1) child-centered, (2) social reform, and (3) experimentalism.

William James and John Dewey were the chief architects of experiential educational philosophy. Dewey refined the philosophy into five components: (1) democracy, (2) reflective thinking, (3) growth, (4) and (5) an interaction with and in the community. Dewey wrapped the components around the experience of the student. Experience became the foundation for Dewey's experiential education philosophy.

## **Theory of Experiential Education**

As a result of the evolution of experiential education and through John Dewey's work, the experience of the student became the focal point of researchers. Identification of the experiential learning process and its impact on students has become a major area of emphasis for educational scientists.

## **Experiential Learning Model**

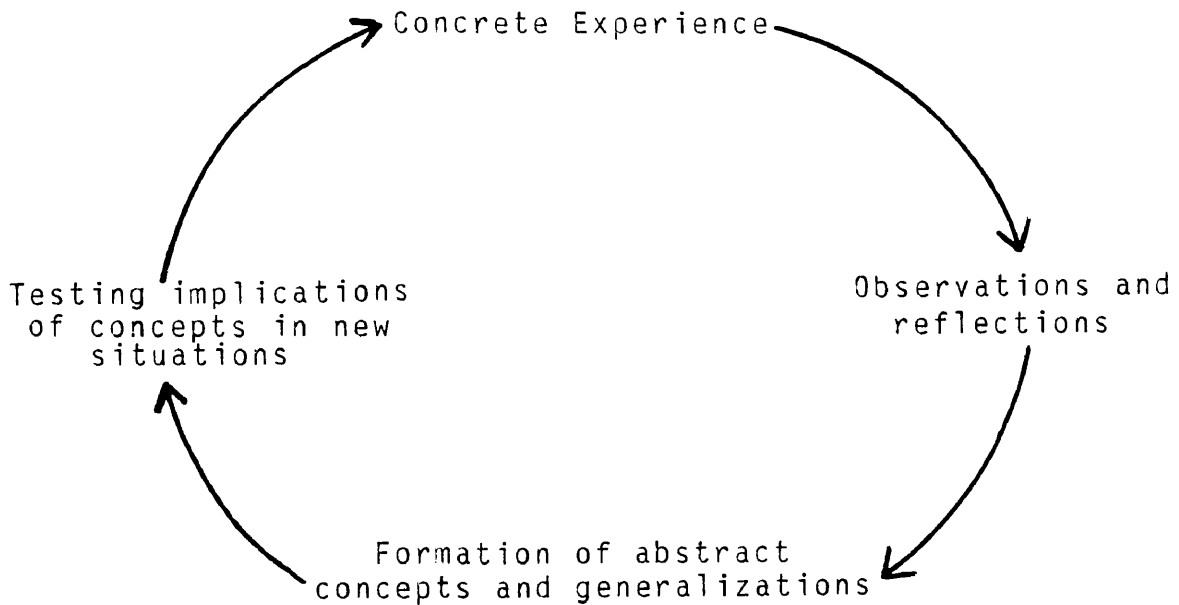
The experiential learning model can be traced back to Kurt

Lewin and his associates (Lewin, Lippitt, and White, 1939) and their work in group dynamics. From their action learning method came the laboratory training method and T-groups.

Kolb and Fry (1975, p. 33-34) stated that the basic principle of experiential learning is "... learning, change, and growth which are best facilitated by an integrated process: that begins with (1) here-and-now experience; followed by (2) collection of data and observations about that experience; (3) the data is then analyzed and the conclusions of this analysis are feedback to the actors in the experience; and finally the feedback is used in their (4) modification of their behavior and a choice of new experiences." Learning for Kolb and Fry (1975, p. 34) is thus a four stage process as shown in Figure 1.

Examining Figure 1., (1) Present or current concrete experiences are the basis for observation and reflections, (2) these observations and reflections are organized into a 'theory', (3) from which new implications for future actions can be deduced, and (4) finally these new implications or hypothesis then serve as guides in acting to create new experiences (Kolb and Fry, 1975, p. 34). Experiential learning for Kolb is complete learning. "When students start with concrete experience and then have the opportunity to step back and reflect upon

Figure 1. Experiential Learning Model.



experience; to form generalizations and conceptual models, in relation to prior learning; and to test the implications of this conceptualization through new experiences; they can achieve the mastery of both theory and practice" (Kolb, 1984, p. 9).

### **Experiential Learning Process**

Kolb and Fry (1975, p. 34) identified four implications of the experiential learning process:

1. The concept of growth and development. Learning is by its very nature a tension and conflict-filled process, which is best facilitated in an environment where there is dialectic tension and conflict between immediate

experience, concrete experience, and analytic detachment (Kolb and Fry, 1975, p. 35). New knowledge, skills, or attitudes are achieved through confrontation among the four elements of the experiential learning model (Kolb and Fry, 1975, p. 35).

As growth occurs, thought becomes more reflective and internalized, as the individual begins to use more symbols and images than overt actions. The modes of active experimentation and reflection, like abstractness and concreteness, stand in opposition to one another (Kolb and Fry, 1975, p. 37). Reflection tends to inhibit active experimentation and vice versa. As a result of their experiences, individuals come to develop characteristic styles of resolving these conflicts and begin to prefer one mode over another (Kolb and Fry, 1975, p. 35).

2. The role of individual differences in learning style. Each individual combines his or her genetic makeup, past life experiences, and the demands from the present environment to develop specific learning styles which emphasize some learning abilities over others. Using the Learning Style Inventory (LSI), Kolb and Fry (1975, p. 38-41) identified four statistically prevalent types of learning styles: (1) Converger - whose dominant learning abilities are Abstract Conceptualization and Active Experimentation and whose greatest strength lies in the practical application of ideas and preference to deal



with things rather than people; (2) Diverger - whose dominant learning abilities are Concrete Experience and Reflective Observation and whose greatest strength lies in imaginative ability and is interested in people and tends to be imaginative and emotional; (3) Assimilators - whose dominant learning abilities are Abstract Conceptualization and Reflective Observations and whose strength lies in the ability to create theoretical models, excels in inductive reasoning, and is more concerned with the practical use of theories; and (4) Accommodator - whose dominant learning abilities are Concrete experience and Active Experimentation and whose strength lies in doing things, carrying out plans and experiments, and being involved in new experiences.

3. The integration of the cognitive and socio-economic perspectives on learning. The experiential learning model describes the central process of human adaptation to the social and physical environment, through the adoption of creativity, problem-solving, decision-making, and attitude change. Thus the individual's central life task becomes determining the course of his or her personal development by forming a learning process with highly expanded abilities to experience, observe, conceptualize, and experiment. Kolb and Fry (1975, p. 41-51) identified and described three broad developmental

stages in the human growth process:

(1) Acquisition stage extends from birth to adolescence and marks the acquisition of basic learning abilities, cognitive structures, and the emergence from immersion in one's experience (where self and world are undifferentiated) to a sense of self and self-control.

(2) Specialization stage extends through formal education and/or career training and the early experiences of adulthood in which the individual achieves a sense of identity through the acquisition of a specialized adaptive competence in dealing with the demands of his or her chosen "career". In this stage, individuals are shaped by social, educational, and organizational socialization forces which help develop an increased competence in a specialized mode of adoption that enables them to master the particular life tasks they encounter in their chosen career. Development tends to follow a path toward accentuation of personal characteristics and skills; which results in most adult life paths following a cycle of job, educational, and life style choices that build upon the experiences resulting from previous similar choices (Feldman and Newcomb, 1969; Kolb, 1973).

(3) Integration stage is marked by the reassertion and expression of the non-dominant adaptive modes or learning styles and is expressed in the form of new career interests, changes in life style and/or new

innovations, and creativity in one's chosen career. The sense of frustration and pessimism about the destructive effects that societies and socializing institutions have on the individuals career fulfillment, hastens the individual's transition into the integrative stage of development.

4. A new learning environment. A fourth implication of the experiential learning process is a new environment. Typically educators have concentrated on the traditional educational system with its classroom and/or subjects/courses and interaction between individual learning styles and environment demands. However, the traditional classroom and/or courses are but a fraction of a total experience influencing the individual learner. Matching the specific learning environmental factors to what a learner likes, wants, needs, or prefers; helps integrate the learner with a stage of learning growth and development. Kolb and Fry (1975, p. 54) identified the kinds of environmental factors that are the key in differentiating learning styles and stimulating growth:

- (1) Affectively complex environments are characterized by:
  - a. focus on here-and-now experience
  - b. legitimize of expression of feelings and emotions
  - c. situations structured to allow ambiguity
  - d. high degree of personalization
- (2) Perceptually complex environments are characterized by:
  - a. opportunities to view subject matter from

- different perspectives
  - b. time to reflect and roles (listener, observer, etc.) which allow reflection
  - c. complex and multiple observational frameworks
- (3) Symbolically complex environments are characterized by:
- a. emphases on recall of concepts
  - b. thinking or acting governed by rules of logic and inference
  - c. situations respected as caretakers of knowledge
  - d. authorities respected as caretakers of knowledge
- (4) Behaviorally complex environments are characterized by:
- a. responsibility for setting own learning goals
  - b. opportunities for real risk taking
  - c. environmental responses contingent upon self-initiated action

### **Forms of and Opportunities From Experiential Educational Programs**

Kendall, Duley, Little, Permaul, and Rubin (1986, p. 31)

listed the types and forms of experiential education:

1. Discrete experiential education courses or programs
  - cooperative education
  - field study, field work, field research
  - independent study
  - internships
  - practice
  - service-learning
  - work-learn
  - others
2. Experiential education as one or more components of a course or a program
  - field projects
  - field trips

- participatory observations
  - oral interviews
  - site visits/field observations
  - use of primary source or raw data
  - others
3. Other experiential techniques incorporated into a course or a program
- role playing
  - simulation games and exercises
  - student led class sessions
  - group learning activities
  - laboratory work
  - other active forms of learning

Experiential education can provide students an opportunity to (Little, 1981, p. 12-13):

1. Apply, integrate, and evaluate a body of knowledge and the methods of inquiry of a discipline via first-hand participation.
2. Acquire skills and values specific to a professional occupation.
3. Acquire and develop general functional skills and attitudes necessary for effective adult life; eg. interpersonal interaction, group process, intercultural communication, coping with ambiguity, and working on real problems with other adults.
4. Develop the ability to learn in a self-directed fashion.
5. Develop and use an ethical perspective or stance; to develop moral reasoning or judgement in ethically complex situations.
6. Test careers by exploration or confirmation of career choices and to gain documented work experience.
7. Become responsible citizens of the community by identifying issues of social concern and developing skills for citizen participation.
8. Have access to knowledge not easily attained through class-room instruction.

9. Identify problems for further study.

### **Developmental Outcomes of Experiential Education Learning**

After interviewing a panel of twenty professional practitioners in experiential education and surveying 4000 students of experiential programs; Conrad and Hedin (1981, p. 35-36) reported the expected outcomes from participation in an experiential education program. Conrad and Hedin (1981, p. 37) further organized these expected outcomes into three categories of development:

#### Social Development

1. Concern for fellow human beings.
2. Ability to get things done and to work smoothly with others.
3. Realistic attitudes toward other people such as the elderly, handicapped, or government officials.
4. Responsibility to the group or class.
5. Sense of usefulness in relation to the community.
6. Assume new, important tasks in community and schools.
7. Realistic ideas about the world of work.
8. Learning about a variety of careers.

#### Psychological Development

1. Self-motivation to learn, participate, and achieve.
2. Self concept (sense of confidence, sense of competence, self-awareness).
3. Risk-taking - openness to new experiences.
4. Risk-taking - being assertive and independent.
5. Accept consequences of my own actions.
6. Responsibility for my own life.

### Intellectual Development

1. Problem-solving.
2. Gathering and analyzing information, observing, and reflecting on experience.
3. Knowledge of community organizations.
4. Awareness of community problems.
5. Communication skills (listening, speaking, and presenting ideas through a variety of media).
6. Awareness of community resources.

Experiential education can take several forms and be organized in different ways. Following the work of Conrad and Hedin (1981) in categorizing experiential education into of areas of development, the following is a review of these categories of development.

### Social Development

As the responsibility of raising, growing, and developing youth has shifted from the family and church to the school youth have been forced into a place in society where they are regarded neither as children or adults. Kenneth Keniston (1975, p. 4) describes youth as a "new stage of life," with its central characteristic being the tension between selfhood and the existing social order. As youth begin to develop socially, they begin to sense who they are and to recognize the possibility of conflict and disparity between their emerging self and society (Keniston, 1975, p. 4). Mitchell (1975, p. 237) stated that cultural practices and institutions serve to diminish the significance of the adolescent stage by treating these

years as a 'time zone' in which the person acquires immunity from social responsibility.

Erickson (1968) contends that youth are denied a recognized and valued role in society. Conrad (1979, p. 11) emphasized that in schools and elsewhere there is little opportunity for a young person to be a contributor; or to be recognized as a contributor; to experience the satisfaction of undertaking a needed task and completing it creditably; to feel the joy and endure the pain of significant involvement in the world; and of acting and not just always preparing for action.

Youth have far too narrow an experience and associational base, are not exposed to a large enough slice of the economic, political, and cultural realities of society and are not given sufficiently responsible and meaningful tasks to accomplish (Conrad, 1979, p. 12). The result is an inadequate preparation for the key adult roles of worker, parent, citizen, and caretaker (Brown, 1973; Coleman, 1974; Martin, 1976).

The National Panel on High School and Adolescent Education (Martin, 1976) recommended that the adolescent education system actively integrate youth into the broader community by providing a wide variety of out-of-school or "experience-based" learning opportunities.

Conrad (1979, p. 7), reported there are significant



challenges for young people which could be incorporated into a meaningful education for a person.

### **Evidence of Social Development From Research**

In research that had students spending up to 80 percent of their time in the community as observers and interns, Experience Based Career Education (EBCE) reported: (1) students showed no losses in academic achievement; (2) gained in knowledge about careers; (3) learned to communicate with adults and peers; and (4) increased self-confidence, reliance, and a sense of responsibility (Bucknam, 1976; Watkins and Corder, 1977). Stockhaus (1976) reported that students who engaged in volunteer service in their community showed significant improvement in their sense of social responsibility and community responsibility.

White (1963) and Mitchell (1975) reported the need to make significant contributions to the environment in which they live is one of the basic needs of adolescents. Conrad and Hedin (1981, p. 88-93) stated that participation in experiential learning programs tends to have a positive effect on the social and personal responsibility of youth by: (1) providing for their needs to contribute to the significant events in their world; (2) measuring more positive gain in personal attitudes; while (3) measuring less on social attitudes. Conrad and Hedin (1981, p. 92)

further reported that experiential educational programs had made the strongest changes in youth toward taking responsible action as opposed to having more responsible attitudes and toward having more personally responsible attitudes as opposed to socially responsible attitudes.

### Psychological Development

Psychological development for experiential educators produces persons who have a clear sense of who they are, what they believe in, and what they can do. Conrad (1979, p. 4) stated that psychological development is a valid and necessary aim of education and that it should be deliberately promoted.

Research into citizenship behavior, defined as active participation, was linked to the psychological variables of self-esteem (Stockhaus, 1976) and the level of moral reasoning (Haan, Smith, and Block, 1968). Purkey (1970, p. 15) reported a persistent and significant relationship between self-concept and academic achievement. Conrad (1979, p. 26) reported that growth, occurring in stages, depended upon a certain maturity and readiness within the individual and upon the kind and quality of the individuals interactions with the environment. John Dewey (1938) stated that individuals move through stages of

development and individual experience is the key to movement through these stages. These developmental stages are what defines education and should be its deliberate and primary aim (Dewey, 1938). Psychological stage theories of development vary in focus, but share the central concept of stage, structure, and interaction (Conrad, 1979, p. 25). Each stage of development is unique and separate, but builds and is dependent upon the prior stage of development (Sprinthall, 1978, p. 2). Kohlberg and Mayer (1972, p. 486), stated that the changes that occurred were "... irreversible, sequential, and hierarchical."

Four stage theories of psychological development are particularly related to experiential education. Cognitive development by Jean Piaget, moral development by Lawrence Kohlberg, ego development by Jane Loevinger, and personal development by Eric Erickson; help explain the psychological development of learners in experiential education.

### **Jean Piaget's Cognitive Development**

Piaget identified four stages of cognitive development in childhood and adolescence: (1) sensori-motor, (2) pre-operational or intuitive, (3) concrete operational, and (4) formal operation. For Piaget, only adolescents were able to achieve the stage of formal operations (the

capacity to think abstractly, without reference to concrete materials). Once at the formal operation stage, adolescents are able to hypothesize about relationships; draw out implications of concrete experiences; employ a systematic approach to problem-solving, which leads to application to real social problems; understanding how others see issues; imagining the consequences of alternative actions; and make creative use of the rich stimuli offered by real experiences (Conrad, 1979, p. 26). Kohlberg and Gilligan (1971) stated that all secondary students are able to attain formal operations, however only half or less actually do so. While Conrad (1979, p. 27), reported that teenagers entered adulthood with a retarded capacity for understanding the world, their own experience, and without the necessary cognitive tools for achieving and exercising personal autonomy.

### **Lawrence Kohlberg's Moral Development**

Moral development is how a person makes sense of and establishes judgments about his or her social world. Kohlberg's theory of moral development (Kohlberg, 1973) has three levels and six sequential orientations:

1. Preconventional Level
  - A. Obedience and punishment orientations
  - B. Naively egoistic orientations
2. Conventional Level
  - A. Good boy - Good girl orientation
  - B. Authority and social order maintaining

- orientation
- 3. Post-Conventional
  - A. Contractual legalistic orientation
  - B. Conscience or universal ethical principal orientation

The development of the capacity for moral reasoning requires that an individual be stimulated by discussions of value questions and challenged by direct involvement in issues of social consequence (Conrad, 1979, p. 28). A person's level of moral reasoning tends to lag slightly behind his or her actual stage of cognitive functioning. Kohlberg and Gilligan (1971) reported that approximately 50 percent of American adolescents can think at the formal operations abstract level, but only 25 to 30% of adults actually reached the "post-conventional" level of moral reasoning.

### Jane Loevinger's Ego Development

Ego can be considered a master trait of human growth involved in coordinating, choosing, selecting, and directing a person's activities. Ego functions in distinctive ways at different stages of development. Each of the stages builds upon the previous stage, so that the ego is increasingly able to take in more aspects of a given situation; has a greater tolerance for complexity; sees things more broadly; and selects from a greater variety of possible actions (Conrad, 1979, p. 28).

Loevinger (1976) identified eight stages of development:

1. Presocial
2. Symbiotic
3. Impulsive
4. Self protective
5. Conformist
6. Conscientious
7. Autonomous
8. Integrated

Youth program aged youth tend to cluster at the self protective and conscientious stages. Youth at these levels tend to be preoccupied with appearance and superficial niceness, exhibit stereotypic thinking, and have an interpersonal style dominated by a need for acceptance and belonging (Conrad, 1979, p. 29).

### Eric Erickson's Personal Development

Erickson approaches individual development from a psychoanalytical perspective. Erickson translated Fruedian theory into a more complete and less deterministic theory. Unlike the stages of development of the other theorists, Erickson's stages are not conceived as structures operating within the individual, but represent central problems of experience, which must be faced and resolved at particular periods of one's life (Conrad, 1979, p. 29). These age-related problems are never solved completely, but the degree of resolution affects the individual's confidence and competence to cope with the conflicts of later stages (Conrad, 1979, p. 30). Stages of Erickson's (Erickson, 1968) personal development

are:

1. Trust vs mistrust
2. Initiative vs guilt
3. Mastery vs inferiority
4. Identity vs identity diffusion
5. Intimacy vs isolation

Stage four (identity vs identity diffusion) occurs during the period of most youth program participation (11 and 19 years of age). During this period of development the individual undergoes a period of experimentation and crisis. If out of this period, one develops a relatively stable and coherent sense of where one is going, then one's life identity is achieved (Conrad, 1979, p. 30). Identity diffusion characterizes those individuals who try out a number of roles but who neither demonstrate or are actively involved in arriving at basic commitments (Conrad, 1979, p. 30).

### Summary of Stage Theories of Psychological Development

For each of these psychological development theorists, growth occurs through significant interaction with the environment (experience). Therefore learning and development is an interactive process. An essential element of growth-inducing experience is conflict, which stretches the child's existing thinking and induces him to seek more adequate ways of reorganizing his experience and action (active doing combined with active learning)

(Conrad, 1979, p. 32).

### **Evidence of Psychological Development From Research**

Cognetta and Sprinthall (1978) reported that the basic goal of promoting psychological maturity is best accomplished when the educational intervention involves a balance between experience and reflection and where the students are involved in genuine role-taking and significant interpersonal learning. Conrad and Hedin (1981, p. 184) reported that psychological growth requires challenge, conflict, support, and significant experience. Conrad (1979) reported that designing and assigning practicum experiences that correlate with the developmental level of the students provided an effective approach with significant gains in both moral reasoning and ego development.

Studies involving students as moral educators to younger students (cross-age experiences) (Alexander, 1977; Cognetta and Sprinthall, 1978; Sullivan, 1975) reported positive and significant gains in both ego and moral development in the student educators. Similarly, Sprinthall (1974), Dowell (1971), Mackie (1972), Rustad (1974), and Chiosso (1976) reported having teenagers learn in a seminar and practicum format and, then, using counseling skills, resulted in positive gains in both moral maturity and ego development. Conrad and Hedin



(1981, p. 184) reported students exposed to a combination of instruction in moral development theory and direct volunteer service showed a greater increase in principle reasoning than students receiving classroom instruction alone. Students in experiential programs do gain in social situational self-esteem, though to a degree only slightly greater than that of students in regular school programs (Conrad and Hedin, 1981, p. 74).

Conrad and Hedin (1981, 78-81) also reported their results in experiential education research showed that intensive outdoor experiences may have a particularly powerful effect on self-esteem development with the highest gainers in programs where students were most clearly in new roles, where there was strong emphasis on active and intensive reflection on experience, and where the program lasted at least 12 weeks. Conrad and Hedin (1981, p. 81) concluded that experiential programs can effectively promote the psychological development of adolescents and that the impact is strongest when the experience is most intensive, most dissimilar from ordinary school activities, and is accompanied by a reflective component. Mosher (1977) summarized the findings of developmental educational research as:

1. It seems possible to stimulate moral and ego development through deliberate educational interventions.

2. Factors leading to moral development at least appear to be a combinations of:
  - A. Exposure to and interaction with higher stage reasoning
  - B. Exercise of empathy and role-taking
  - C. Action in behalf of chosen moral and social goals
  
3. Affective education experiences are:
  - A. Discussions of moral dilemmas
  - B. Role-taking experiences
  - C. Social service and social action

Conrad (1979, p. 44) reported that research evidence from experiential programs does support the claim of a positive impact on the psychological development and self-concept of adolescents. Experiential educational programs continue to stress the improvement of self-esteem as one of their major objectives.

### Intellectual Development and Academic Learning

Conrad (1979, p. 45) stated that "experience, life, and intellectual training are inseparable." For education to be successful, students must not only acquire knowledge but experience it to derive meaning from it.

Conrad (1979, p. 45) identified two central connections between experience and learning, in his theory of intellectual development:

First, is having experience. John Dewey in Democracy and Education, tied experience and learning together in his definition of education: "... education is that construction or reorganization of experience which

adds to the meaning of experience and which increases the ability to direct the course of the future" (Dewey, 1916, p. 76). For Conrad (1979) experience is a component of education in the following ways:

1. As a method of learning. William James, John Dewey, and Jean Piaget believed that acquiring knowledge that leads to knowing, requires that individuals interact with their environment. Similarly, the need for experience is most readily felt when the consequences of learning (or not learning) are most clear (Conrad, 1979, p. 47).

2. As a guard against meaningless abstraction. Dewey (1916, p. 8) urged educators to make learning "active" and to instruct to the interest and experiences of the learner. Furthermore, "second-hand learning is dead and barren and consists of degenerate reminiscence of what someone else once formulated, on the basis of the experience that some further person had, once upon a time experienced" (Dewey, 1902, p. 352).

3. As an extension of one's world. Conrad (1979, p. 48-49) called for using the community as a classroom, with the school promoting wider experiences (broadening their horizons; exposing them to new information, experiences, and sources of learning not available in the usual school settings) and providing the

students with a broader range of situations in which to practice and develop survival and problem solving skills.

4. As a stimulus for personal learning. For Coleman (1979, p. 8) personal growth was the aim of education, which would likely sharpen one's discontent with the sterile environment of the classroom. Coleman (1979, p. 9) further argued that the sterile life in the classroom was matched with a similar "vacuum outside of school." For Coleman (1979, p. 8) the function of experiential education was providing students with "intense experiences, and critical events, that would give knowledge of one's self; make us less fearful of our faults; and more able to address them in a straight-forward way, without fear or favor." Finally, Coleman (1979, p. 9) suggested that the time had come to "design learning environments, whether in the school or in another setting, that contained those experiences that could move the student along the path to self knowledge".

The second central connection between experience and learning, as identified by Conrad (1979, p. 45) was being a scholar of experience. Understanding the nature of experiential education would result in a more effective application of its methodology, by understanding it as:

1. As a mode of learning. Olson and Bruner (1974, p. 132) identified three different modes of learning: (1) through contingent experience, (2) through

observation of models, and (3) through symbolic stages. While, Conrad (1979) reported that the basic skills of learning from experience included: observations, active questioning, and synthesis. "To teach a course 'experientially' means more than to place students in roles in the community, it also means to equip them with the skills to learn effectively in that setting" (Conrad, 1979, p. 51).

2. As a process. Coleman (1976, p. 50)

distinguished between two distinct patterns or models of learning and instruction:

A. Information assimilation occurs through a series of steps: (1) reception of information, (2) understanding the general principal, (3) particularizing (i.e., applying the principle to a specific instance), and (4) moving from the symbolic sphere to that of action through direct "application" of knowledge gained in the previous steps". Information assimilation is an efficient means of transmitting stores of information and an effective means of providing principles for organizing particular facts that have been learned (Coleman, 1976).

B. The experiential learning process proceeds in almost the reverse sequence: (1) acting and seeing the effects of that action, (2) understanding the particular case so that one could anticipate what would happen if the

same circumstance occurred again, (3) understanding the general principle, and (4) application through action in a new circumstance (Coleman, 1976).

Compared to information assimilation, the experiential process is weak in transmitting large stores of information and providing principles for organizing particular facts learned, but has the advantage of: (1) providing not only participation and facts but also a sequence of actions and consequences, (2) insuring greater retention of what is learned, (3) being less dependent on a learner's competence with symbolic media, and (4) involving learners in the point of learning (namely, its application to particular instances) (Coleman, 1976, p. 54). Little (1981, p. 8.) stated that "the rationale for experiential learning is that quality education requires both kinds of learning, experiential learning and information assimilation, because their strengths and weaknesses are mutually complementary". Involving learners in the point of learning results in learning being purposeful, and results in motivation seldomly being a problem with experiential learning, while teachers often see it as the major problem in traditional classroom learning (Coleman, 1976, p. 57).

3. As a style of learning. Kolb and Fry (1975, p. 33) described learning as a total experiential process which involves four basic steps, each which represents a

somewhat different style of learning. The four steps are: (1) concrete experience, (2) reflective observation, (3) abstract conceptualization, and (4) active experimentation. Ideally learning occurs in the sequence listed and leads back again to the starting point of concrete experience (Conrad, 1979, p. 53).

The total learning process is a cycle with "really effective learning occurring when all four learning approaches come into play, with the mix depending on the requirements of the situation (Gish, 1979, p. 5). What is common, however, is that individuals, teachers, and instructional systems develop preferences for one or two learning modes which they develop more fully at the expense of others (Gish, 1979, p. 4). One function of an experience-based program, then, is to more fully engage students in all styles of learning (Conrad, 1979, p. 53).

### **Evidence of Intellectual Development From Research**

Intellectual development and academic learning have rarely been the subject of research. "Learning by doing" studies have tended to focus on learning highly specific concepts or skills (Conrad, 1979, p. 55). Lewis (1977, p. 3) reported "learn by doing" students learned both declarative and procedural knowledge in rich detail. Cross-aged tutoring studies are the most extensively

researched form of experiential education. In cross-aged tutoring, tutors made significant gains in knowledge of the subject matters they teach (Allen, Feldman, and Devin-Sheedom, 1976; Paolitto, 1976). The subject area most commonly investigated are math and reading.

Experience Based Career Education (EBCE) (Bucknam, 1976) and the National Center for Research in Vocational Education (Miguel, 1979), reported that the time spent away from traditional academic studies, resulted in no loss of academic skills, while it brings benefits which are unique to the experiential approach. A nation-wide survey of some 4000 high school students showed that the students felt they had learned as much or more in their experiential programs than in their regular classes (Conrad, 1979). Crowe and Walker (1977) reported that interns, sponsors, parents, and coordinators involved in the Executive High School Internship Program were excited about and grew from their experiences.

Conrad and Hedin (1981, p. 138) reported that experiential education programs do have a positive affect on student learning and intellectual development, especially when the program features a combination of direct experience and formal reflection on that experience. Measuring students with a problem solving inventory indicated that students in programs that combined experience and reflection showed substantial increases in complexity of thinking and in



ability (or tendency) to empathize with others (Conrad and Hedin, 1981, p. 138).

### **Experience and Reflection**

What makes one activity more valuable than another activity? Conrad (1979, p. 63) questioned whether it depended on: (1) who is doing it, (2) who experienced it, and finally (3) the quality of reflection that accompanies it. Peters (1967, p. 63) stated that "... what is most worthwhile is that which prompts one to ask the question in the first place."

Looking at the nature of complexity of the experience, Biggs and Schomberg (1977) concluded that high school students who worked in jobs requiring more complex interactions resulted in less dogmatic thinking and higher levels of moral reasoning. Owens and Owens (1979) asked high school students in EBCE programs to rate what they thought made a community experience a quality learning experience, found: (1) trying the work out myself; (2) challenging tasks; and (3) talking with people at the activity were the highest rated variables; while (1) close adult supervision and (2) easy tasks, were rated lowest. These reports support Hanna (1937) who recommended guidelines for experiential programs as tasks that: (1) are seen as significant by the students and the

community, (2) offered a challenge, (3) demand responsibility and decision-making, and (4) are accompanied with opportunities for reflection on the experience.

Other research has focused on the stages of development of the learners. Mosher (1977, p. 86) reported that educational experiences are most appropriate to the person's stage of development. Hedin (1979) concluded that for community experience to be effective in promoting student growth, the experience must be appropriate to and challenge the student's level of moral and ego development. Furthermore, Blackmer and Irwin, (1977) found that program duration proved unrelated to how positively the students rated their experiences; however, the greater the intensity (numbers of hours per day) and regularity of exposure (numbers of days per week), the more likely the experience was to be rated as successful. This was supported by studies of students who volunteered for large blocks of time performing volunteer service, which showed the longer the student was in the field experience, the greater the gain in moral maturity and the more cognitive stage change (Reck, 1978).

In experiential education programs, experience and reflection are both prerequisites for effective learning. Dewey (1938, p. 82) stated that "no experience is educative that does not tend both to knowledge of more

facts and entertaining of more ideas and to a better, a more orderly, arrangement of them." Kolb, (1984, p. 10) stated that reflection enhances perceptual competencies such as gathering and organizing information, listening with an open mind, seeing how things fit in the big picture, and developing comprehensive plans.

Exum (1977) reported that without reflection on the practicum, students learn little if anything from their real experiences. While Ellington (1978), studying the effect of encouraging contact between adolescents and senior citizens found that a combination of contact with older people and instruction about the elderly appeared to positively change adolescents' attitudes toward the aged.

### **Summary**

A review of experiential educational theory and the components of this theory can lead to a greater understanding of youth developmental programs. As youth begin to develop, growth occurs and thought becomes more reflective and internalized, as the individual begins to use more symbols and images. This growth is accomplished through experimentation, whose strength is allowing youth to do things, carry out plans, and be involved in new experiences.

Using Kolb and Fry's (1975) developmental stages in the

human growth process, leads to a understanding of how to structure learning in youth development programs. During the early years of membership (6 - 12 years of age) youth development programs need to concentrate on teaching basic learning abilities and involving these youth in the learning activities. As the youth become older they need to be rewarded for their acquisition of specialized knowledge and skills. As their membership in a youth development program comes to an end these members need the opportunity to be leaders of other youth, contribute to their community, and be allowed to explore career interests and different life styles.

The reported developmental outcomes of experiential education programs can give indications of expected results from youth developmental programs. Outcomes from social development indicate that youth should show a gain in knowledge about careers, increased ability to communicate with adult and peers, and an increase in self-confidence, self-reliance, and a sense of responsibility.

Psychological developmental outcomes (that develop self-esteem) indicate that youth should be challenged, be exposed to conflict, be given support, and have the opportunity for significant experience. The impact of youth developmental programs should be strongest when the experience is most intensive, most dissimilar from

ordinary school activities, and is accompanied by a reflective component.

Intellectual developmental outcomes should stress involving youth in the learning activity, which would result in learning being more purposeful and an increase in learner motivation. Membership in experiential youth developmental programs should result in a greater retention of what is learned and less dependence on a learner's competence with symbolic media.

A major programming consideration for youth developmental programs should be incorporating experience and reflection into their learning activities. A quality learning experience would include (1) having youth try out the work themselves, (2) offering challenging tasks, (3) offering tasks that are seen as significant by the members and their community, (4) talking with other peers, (5) demanding responsible and decision-making opportunities, and (6) all accompanied with opportunities for reflection on the experience.

## YOUTH LIFE SKILLS DEVELOPMENT

The idea of life skills education began appearing in the late 1960's and early 1970's. Working with the Training Resources for Youth project of the New York Young Mens Christian Association (YMCA), Adkins and Rosenberg (1965) developed a life skills education program.

The Saskatchewan Newstart Incorporated (1973) developed a Life Skills Course which sought to restore a sense of control and competence by increasing the skills of the individuals to solve their life's problems. The original definition of life skills was defined by Hims1 (1972, p. 13) as: " life skills . . . means problem solving behaviors appropriately and responsibly used in the management of personal affairs."

Life skills in this study refers to the development of life skills in youth through experiences in out-of-school youth programs. Mullins (1981, p. 43-44) described life skills as having both product and process objectives. Product objectives achieved certain desirable end-products while process objectives emphasized continuous development with goals perceived in terms of potentialities. Stanton, Clark, Stradling, and Watts (1980) further stated that "unlike product competencies, process competencies are never mastered only improved" (p. 13). Mullen (1981) identified a "common core of needs" (p. 35) which were

"interpersonal skills, problem-solving skills, and knowledge of self worth" (p. 35). Noren-Hebeisen and Hedin (1981, p. 28) established "... three variables that seem to occur most consistently in relation to problem behavior: (1) stress, (2) skill deficiencies, and (3) situational constraints." David and Carol Weatherford (1985) defined these life skills variables as:

1. Competency
  - A. Achievement
  - B. Learning
  - C. Economic Input
2. Coping
  - A. Parent-Child Relationship
  - B. Social-Psychological
  - C. Self Concept
  - D. Modeling of Adults
  - E. Stress Management
3. Contributory
  - A. Prosocial
  - B. Friendship Networks
  - C. Leadership

Weatherford and Weatherford (1985) defined competency life skills as developing skills and knowledge about self and the world around them; coping life skills as developing identity through the development of interpersonal skills; and contributory life skills as increasing sharing and social contribution skills which allow self and others to overcome situational and personal barriers.

### **Life Skills Development In Youth Programs**

Dewey (1916) stated that "... experience alone does not automatically produce learning. There is a need to link

practice with reflection. It is necessary to reflect upon and examine one's experience if its meaning is to be consciously grasped and understood." The National Commission on Resources for Youth (1974) reported that youth participation means the involvement of young people in responsible, challenging action that meets a genuine need, with young people having the opportunity for planning and decision making that affects others in an activity that have an impact on others (people or community) but definitely goes beyond the young people. The Report of the Panel on Youth of the President's Science Advisory Committee (Coleman, 1974) recommended the kinds of experience typical of experiential learning programs appeared to be related to the development of more mature behavior, as well as greater knowledge of the world of work and social relations. Furthermore, The Panel on Youth (Coleman, 1974) recommended bringing youth into contact with people of various ages and various ethnic and socioeconomic groups, for involving youth in activities upon which the welfare of other people depends and for providing experiences in interdependent activities toward collective goals.

Hartley (1982) reported that young people ages 8 - 11 years of age, wanted to belong to organized youth groups. Gast and Steele (1973) indicated that because the interest



span of youth is short, a large number and variety of youth serving organizations are needed to provide room for youngsters to move around and try different things. The Encyclopedia of Associations (Gruber, 1987), listed 1200 youth organizations which claimed to provide services to children. Kleinfeld and Shinkwin (1984) stated that traditional youth groups provide many of the experiences educators found lacking in schools:

1. Closer contact between youth and adults from the community.
  - characteristics of youth group leaders tended to be married, family oriented, religious, middle-aged adults who are active in civic affairs (p. 5)
  - the youth group, far from being a barrier to the adult world, was a channel to it (p. 7)
  - adults in the youth group setting communicated quite clearly adult expectations for achievement, community service, taking responsibility for younger children, and meeting obligations (p. 7)
2. Experience in leadership and other active role.
  - youth groups gave young people experiences in running a meeting and in taking responsibility for the welfare of an organization (p. 12)
  - Parents and youth saw developing leadership skills and teaching young people how to plan activities as a major goal and benefit of youth organizations (p. 14).
3. Experience in doing something of benefit to the community.
  - unlike schools and jobs, youth groups stressed voluntary responsibility, accepting community obligation (p. 14)

- parents and youth viewed "...teaching the importance of helping the community" as a major benefit of youth groups and an area where the youth group was far more effective than school (p. 16-17)
4. The opportunity to learn practical non-academic skills.
    - youth groups teach a variety of skills that young people often do not have a chance to learn elsewhere (p. 12)
    - The main activity in youth group meetings was teaching practical skills, most of which were not taught at school (p. 8).
  5. Youth groups also create new occasions for parents to teach their children, thus intensifying the parent's educational role with early adolescent children (p. 5).
    - youth groups attracted families where parents already spent a lot of time with their children, thus providing a convenient new avenue for this relationship (p. 18)

Kleinfeld and Shinkwin (1983, p. 4) reported that members of informal youth organizations were predominantly white (92%), early adolescents (75% were 11 to 14 years of age), and of higher than average socio-economic status (40% of the father's were professionals and 33% skilled workers). Most (80%) had been youth group members for over a year and almost all (93%) said they attended virtually all organization meetings (Kleinfeld and Shinkwin, 1983, p. 4). LaBelle (1981, p. 324) reported that there were approximately 17 million boys and girls who belonged to youth organizations, more than a third of the eligible age group. Table 1 is a summary of youth program emphasizes

Table 1

## Life Skills in Youth Programs

	Competency	Coping	Contributory
Boy's Club	Skills and Knowledge developed in culture health and physical education; outdoor and environmental education	Personal Adjustment Social Recreation	Leadership Citizenship
Boy Scouts	Skills and knowledge developed in natural Resource Education, Career Awareness	Personal growth	Leadership Citizenship
Campfire	Skills and knowledge developed in environmental Outdoor Living	Communications Skills Personal Value Development	Leadership Citizenship
4-H	Skills and knowledge developed in Agriculture, Home Economics, Mechanical, Energy and Engineering Sciences, Ecology and Natural Resources related projects, Leisure Education,	Personal Development Individual and Family Resources	Leadership Citizenship Community Development
Future Farmers of America	Skills and knowledge developed in Vocational Agriculture and Economic Education		Leadership Citizenship Community Skills
Future Homemakers of America	Skills and knowledge developed in Career Education and Cultural Enrichment	Individual growth Social Skills Family Relations	Leadership Citizenship

which may provide some indication of the life skills curriculum offered by youth organizations (James, 1979): James (1979) examining various organized youth programs reported:

1. FFA concentrates its activities on vocational preparation in agriculture for high school youth, with the education guided by professionally trained staff using experiential techniques.
2. A similar situation as FFA, exists in FHA.
3. 4-H works with younger persons than either FFA or FHA and does not emphasize vocational aspects.
4. Boy Scouts and 4-H emphasize natural resources and leadership development experiences, although Boy Scouts attracts more youth who are males under 13 years old and offers more limited means of participation and fewer types of learning experiences.
5. Boy Scouts, Girls Clubs, YMCA, and YWCA provide a curriculum that emphasizes guidance and counseling, targeted directly on the prevention of delinquent behavior and activities focused on leadership, physical education, recreation, and other potential problem areas for youth.
6. Only 4-H is making an outreach in rural areas of the U.S.
7. Although attention to local needs is obviously a concern to other youth organizations, it does not seem to be as consciously maintained and well-integrated into their programs as the program development process in 4-H does.

Furthermore, Kleinfeld and Shinkwin (1984) reported that:

1. 4-H emphasized skill development more than scouting and the skills had less ideological overlay (p. 9)
2. 4-H and scouting emphasized "learn-by-doing" teaching skills in a setting where they could be used (p. 11)

3. Literature on scouting and 4-H suggest these organizations are successful in teaching skills (p. 12)
4. Scouting and 4-H groups resembled adult service organizations and socialized young people for these kinds of community groups (p.16)

### **Life Skills Development In The 4-H Youth Program**

With its philosophy based on experiential learning 4-H In Century III (Extension Committee on Organization and Policy, 1976, p. 3) stated the mission of 4-H "is to help young people become self-directing, productive, and contributing members of society." The objectives of 4-H were further defined in 4-H In Century III (Extension Committee on Organization and Policy, 1976, p. 3) and listed in this review in Chapter I, pages 6 and 7.

The objectives of 4-H have been defined as life skills (4-H In Century III, Extension Committee on Organization and Policy, 1976). The objectives of 4-H are accomplished by bringing youth together in local community clubs so they can develop their life skills through projects in agriculture, home economics, and related subjects. Community 4-H clubs are managed by volunteer adult leaders who help guide the members in planned educational programs. Project groups are lead by volunteer adult leaders who use university based research subject-matter

information and educational delivery methods to teach 4-H members.

Steele and Rossing (1981) found impressive progress with life skills development appeared to be taking place in the 4-H program. Brown (1982) further reported that 4-H helped members in the development of the following skills:

1. Working as a team member.
2. Getting along with a variety of people and following directions.
3. Knowing what a teacher, leader or employer expects.
4. Being dependable.
5. Organizing the work and activities of others.
6. Developing self-confidence.
7. Discovering things one enjoys doing.

One advantage of using Weatherford and Weatherford's (1985) definition of life skills (competency, coping, and contributory) development, is that it includes "... competency of knowledge as a primary purpose of 4-H, yet implies that for application of that knowledge, coping skills (working with others) and contributory skills (using skills to improve situations) are skills which must be added, but can (and probably should) be learned later in a 4-H career" (p. 20). Therefore, Weatherford and Weatherford (1985) recommended that: (1) younger 4-Hers primarily develop competency skills with some coping

skills, (2) older 4-Hers work primarily on coping and contributory skills, and (3) that for the active 4-Her, there should be improvement over time in each of these skills domains.

Weatherford and Weatherford (1985, p. 20) reported that there "... appeared to be considerable research in the 4-H program within the coping skills domain, some research in the competency domain, and the least research within the contributory domain." Weatherford and Weatherford (1985, p. 16-20) summarized 4-H research in competency, coping, and contributory life skills development:

### **Competency Life Skills**

#### Achievement

- achievement and projects completed were two of the greatest sources of 4-H members' satisfaction in the Western Extension District, North Carolina (Jones, 1969)
- opportunities to take active, responsible roles were found in 4-H programs (Kleinfeld and Shinkwin, 1984)
- some high achievers learn to expect unrealistic assistance and recognition for their achievement (Banning, 1979)
- some 4-H participants become too highly achievement oriented, too competitive to win which leads to cheating on records (Banning, 1979)
- high achievement seems to cause some young people to be smug and therefore fail to reach the maximum of their potential (Banning, 1979)
- a significant relationship between 4-H club membership and rural youth interest and later participation in and attitudes toward adult education (Wu, 1968)

## Learning

- a highly significant degree of nutrition behavioral change occurred in those youth who were taught the first six lessons of the 10 lesson youth Nutrition Lesson Series (James, 1975)
- the change in nutrition knowledge was significantly greater than the changes in attitude or food intake (James, 1975)
- 4-H programs possess opportunities for participants to learn practical, non-academic skills (Kleinfeld and Shinkwin, 1984)
- respondents in grade four exhibited the greatest advancement in knowledge after participating in a 4-H TV Science Club Project, while respondents in grade seven had the least advancement (Mathis, 1971)
- 4-Her's indicated they learned most about their market animal project from participation in livestock shows, from parents, and from the 4-H agent (Whattley, 1982)
- 4-H members achieved or exceeded national career and occupational development standards for numerical skills, knowledge of jobs, and careers, in areas of communication, and in career planning (Brown, 1982)
- 4-Her's in Wisconsin did moderately well in developing inquiring minds, and an eagerness to learn, the ability to apply science and technology in some of the practical skills, competencies, and project knowledge (Steele and Rossing, 1981)
- 4-H helped members discover things one enjoys doing (Brown, 1982)
- 4-Her's show more interest in juvenile activity, outdoor team sports, solitary sports, agriculture, and group activity. These interests are more extrinsic, develop at an earlier stage of 4-H tenure but decrease as tenure increases and are negatively correlated with mental age, attitudes, and occupational choices (Wu, 1969)
- the extent of participation in the 4-H program was reflected in high school achievement, with members having a (C+) or above (Rochon, 1981)



## Economic Impact

- 4-Hers in Wisconsin did least well in developing potential by seeking and acquiring educational and vocational experiences (in particular job and career information related to their project) (Steele and Rossing, 1981)
- 4-H helped members develop good work habits and attitudes (Brown, 1982)
- discovery of career opportunities, improvement of personal employability, and improvement of specific job skills (Carpenter, 1980)

## Coping Life Skills

### Parent-Child Relationship

- 4-H created greater communication and understanding within the family (Abbott, Sutton, Jackson, and Logan, 1976)
- the chance to participate in activities with their families motivated 4-Hers in the market animal project (Whattey, 1982)
- the most significance between the 4-H sample and the composite sample was that 4-H members and parents had important linkages through participation in 4-H (Search Institute, 1983)
- child's conflict and family conflict were positively related to 4-H member participation (Banning, 1979)
- desire for increased effectiveness of parent-child communication in a number of areas was identified by both youth and their parents (Search Institute, 1983)
- parents sometimes put undue pressure on their children to achieve; which causes trouble between parents and children and children who fail to achieve parents' expectations feel worthless (Banning, 1979)

- 4-H community clubs created the most extensive network of relationships between young people and adults (Kleinfeld and Shinkwin, 1984, p. 5)

### Social-Psychological

- older 4-Hers were most apt to feel 4-H helped in social psychological areas (Steele and Rossing, 1981)
- 4-H members had significantly higher Interpersonal Adequacy and Social Adequacy Scores on the Psychological Maturity Index. Males were lower than females in Interpersonal Adequacy. For Social Adequacy rural 4-H boys scored high, but urban 4-H boys scored low; 4-H girls in larger towns scored high, but rural 4-H girls scored low (Young, 1981)
- 4-H helped its members in learning to get along with a variety of people and in following directions (Brown, 1982)

### Self Concept

- outdoor education classes showed a positive change in self concept while a control group did not show an equivalent change (Dixon, 1982)
- learners with a negative self concept exhibited greater positive nutrition behavioral change than those with a positive self concept (James, 1975)
- the chance to gain responsibility motivated 4-Hers in market animal projects (Whattey, 1982)
- recognition and responsibility-growth were two of the greatest sources of 4-H members' satisfaction in the Western District, North Carolina (Jones, 1969)
- 4-H helped members be dependable, responsible for doing jobs (Brown, 1982)
- 4-H helped members know what a teacher, leader, or employer expects (Brown, 1982)
- the Wisconsin 4-H program did especially well in acquisition of positive attitudes toward self and a feeling of self worth (Steele and Rossing, 1981)

### Modeling of Adults

- 4-H produced closer conduct between youth and adults from the community (Kleinfeld and Shinkwin, 1984)
- 4-H members indicated they received more help in market animal projects from parents and siblings than from other sources (Whattey, 1982)
- developing effective interpersonal relationships with adults and youth was an objective the Wisconsin 4-H program did well in achieving (Steele and Rossing, 1981)

### Stress Management

- Wisconsin 4-H members did especially well in improving skills in communications and self expression (Steele and Rossing, 1981)
- Wisconsin 4-H members did moderately well in maintaining optimum physical and mental health and in using time wisely to attain a balance in life (Steele and Rossing, 1981)

### Contributory Life Skills

#### Prosocial

- behavior of 4-H participants was found to be more prosocial and less asocial (Abbott et al., 1976)
- 4-H programs were found to offer experience in doing something of benefit to the community (Kleinfeld and Shinkwin, 1984)
- 4-H youth were higher on an index of prosocial behavior (Search Institute, 1983)
- the Wisconsin 4-H program was doing especially well in developing socially acceptable behavior, setting personal standards and values, and in developing abilities to perform as productive and contributing citizens (Steele and Rossing, 1981)

- the Wisconsin 4-H program was doing moderately well in developing concern for involvement in community and public affairs (Steele and Rossing, 1981)
- Both 4-H members and their parents were likely to be active in youth and youth-serving organizations and thereby were potential channels of influence on other youth and parents (Search Institute, 1983)

#### Friendship Networks

- a positive change in the social behavior of friends (Abbott et al., 1976)
- 4-H members were highly motivated by the opportunity to participate in activities with their peers (Whattey, 1982)

#### Leadership

- 4-H helps its members learn to organize the work and activities of others (Brown, 1982)
- the Wisconsin 4-H programs did especially well on increasing leadership capabilities (Steele and Rossing, 1981)
- establishment of new economic enterprises was identified as a consequence of 4-H participation (Carpenter, et al., 1980)
- an economic consequence of 4-H was expansion of economic resource base of the community (Carpenter, et al., 1980)
- 4-H helped its members work as team members (Brown, 1982)

## THE 4-H PROGRAM

The 4-H youth program is one of the oldest and largest nontraditional efforts in public education in the United States. It is administered on the federal level by the U.S.D.A.---Extension Service (ES) and on the state level by the state Land Grant University; both cooperating with local level government, to bring the 4-H program to youth 9-19 years of age. For the last 80 years, this out-of-school youth development program has helped "young people become self-directing, productive and contributing members of society." (4-H In Century III, Extension Committee on Organization and Policy, 1976).

The educational objectives of 4-H are accomplished by bringing youth together in local community clubs so they can develop essential life skills through projects in agriculture, home economics and related subjects. Community 4-H clubs are managed by volunteer adult leaders who help guide the members in planned educational programs. Project groups are lead by volunteer adult leaders who use university based research subject-matter information and educational delivery methods to teach 4-H members.

### Historical Development

The 4-H program was formally established by the

Cooperative Extension Service after the Smith-Lever Act in 1914, with the purpose of assisting with the development of a progressive and productive agriculture and promoting the general development of youth. Reck (1951, p. vii-viii) identified the forces that were simultaneously at work to focus national attention on farm boys and girls as:

1. A feeling on the part of educators that rural schools were inadequate and not related to farm living
2. A growing sentiment for practical education in agriculture, manual arts, and homemaking
3. The urge of colleges of agriculture to pass on new techniques to farm communities
4. A growing desire on the part of farm families for the better things of life, as a result of the gradual conquest of frontier isolation
5. A drive to lift rural cultural standards, reaching its national expression in President Theodore Roosevelt's Country Life Commission Report
6. A concern for the needs of adolescents, which was to result not only in 4-H but in such organizations as Boys Scouts, Girl Scouts, and Camp Fire Girls
7. A worry over the drift of farm youths to the cities

Pigg, Meyers, and Boyce (1980) identified four historical developmental phases of the 4-H program:

Phase One Development - Technology Diffusion (From the beginning of the 4-H program (1890) to the early 1920's). The 4-H program began as progressive educators demonstrated new methods and technologies to farm families

through youth agricultural clubs and contests. The early 4-H club had two purposes: (1) enhance the development and education of youth and (2) induce the adoption of improved agricultural production methods. The Smith-Lever Act stated that the basic purpose of Cooperative Extension was "to contribute to the diffusion of useful and practical information among the people of the United States and to encourage it's application, (through work with youth and their families)" (Reck, 1951). The central 4-H activity was a 4-H project, essentially a small-scale practical farming or homemaking demonstration conducted by farm youth. The agricultural-related projects were conducted in a place and a manner that farmers could not overlook (Pigg et al., 1980). The 4-H program involved rural youth in purposeful activities, interacting with a caring educated adult, and introducing them to the basic working concepts of science and pragmatic rationalism (Pigg, et al., 1980).

Phase Two Development - Vocational Preparation (From the early 1920's to the post World War era (1950)). With the acceptance of the Extension agents and their technical information, 4-H's role in innovation adoption efforts ceased in the early 1920's. However, farm families valued the 4-H program as a worthwhile educational experience for their children. Extension standardized the community 4-H

club by developing volunteer adult and youth leaders, organizing community support, and developing a program that helped youth to develop rational decision and thought processes, vocational skills, and youth and community leadership. Even though the 4-H program became more child development centered, it maintained its rural image by restricting its subject matter to strictly agricultural production and home economic projects.

However, 4-H continued its practice of teaching knowledge and skills through experiential (learn by doing) methods.

Phase Three Development - Value Based Socialization (From 1950 to the mid to late 1960's). With the post World War II era came the realization that this country had moved from a rural population ((50% in 1920) to an urban population 66% in 1950). This trend was reflected in the makeup of the 4-H membership. Bennedetti, Cox, and Phelps (1976) reported:

1954	66.0% farm	21.0% rural non-farm	13.0% city
1969	36.4% farm	41.8% rural non-farm	21.8% city

This movement of population represented families who had a rural farm and 4-H background. Many of these families were headed by parents who were displaced farm families/workers familiar with 4-H. They sought the 4-H program for its social value and work ethic education that their children weren't receiving. They expected their children to learn rational decision-making skills and to develop



leadership abilities and a sense of responsibility, as well as developing traditional rural values and ethics. The important point is that many of these parents not only sought out the 4-H program for their children, not vice versa, but were committed enough to maintaining the 4-H idea, that they volunteered to be adult leaders.

Reck (1951) stated that these non-farm parents had an appropriate perspective on the curriculum of 4-H. Working at a task, regardless of the subject matter, may be the best way to learn more generalizable skills and social values. This period also saw 4-H develop relationships with university research departments and "subject matter specialist" (Pigg, et. al., 1980).

#### Phase Four Development - Information Based Expansion (Mid

to late 1960's to the present). With the emphasis on social development programs in the 1960's, Extension and the 4-H Program was also involved. In 1968 Congress appropriated \$10 million for an Expanded Food and Nutrition Education Program (EFNEP). Part of this federally funded program also made provisions for a special 4-H youth EFNEP program. This special outreach 4-H program provided nutritional information and a means of participation for the poor and urban youth.

Another special federally funded program was the Urban 4-H program which further eroded the traditional rural-urban

4-H boundaries and contributed to making half of 4-H's project enrollments in projects other than those in agriculture or home economics.

Along with the special outreach programs, the 1970's also saw the 4-H program utilizing other avenues of member participation. 4-H now had seven units of participation: clubs (organized, projects, school), individual self-study, special interest, curriculum enrichment, camps, television (TV), and collaboration with other youth groups. These other units of participation were used for avenues of recruitment, an introduction to organized 4-H club work and information dissemination. These units exposed youth to some specific subject information but did not offer the 4-H experiential hands-on learning experience or the social values reinforcement of the traditional organized community 4-H club.

### **Consequences of 4-H by Units of Participation**

Pigg, et al., (1980) categorized the levels of consequences from participation in 4-H units as:

First order consequences - Those effects occurring to individuals and small groups relatively immediately, e.g., participation in some activity, acquisition of information, skills, and attitudes.

Second order consequences - Those effects occurring to individuals and small groups across time and/or space

(i.e., deferred settings), e.g., changes in behavioral practices, quality of style of life, income changes, and health changes.

Third order consequences - Those effects occurring to community or regional groups and/or to social or economic institutions as an aggregate of first and second order consequences, e.g., changes in community practices or capacities, changes in income distributions, consumer behavior, health indices, behavioral indices, social norms, and laws.

The term consequences as used here is taken to have as modifiers only the concept "social" and "economic," and therefore, refers to all such effects produced by the conduct of Extension/4-H Youth program (Pigg, et al., 1980). An analysis of these units of participation by Pigg, et al., 1980 indicates that they provide the "instructional treatment" necessary to achieve the program education objectives as prescribed in 4-H In Century III, (Extension Committee on Organization and Policy, 1976).

### **Organized 4-H Clubs**

A. The Community 4-H Club is the primary 4-H participation unit. Members in community 4-H clubs learn to work with others through group activities. The members elect their own officers and plan and conduct their club's

meetings and project and activities which fit the interest of the members' interest. The club is managed by a volunteer adult leader, who along with the members' parents, help the members make the basic decisions on the projects in which they will study and learn.

Pigg, et al., (1980) identified the primary experiential elements of the Community 4-H Clubs as:

1. In-depth, structural subject matter tasks which are usually sequentially designed and built around knowledge and skill application. There is extensive individual task responsibility and undirected work.
2. Heterogeneous peer group interaction including cross-age peer tutoring.
3. Extensive task focused adult-youth interaction with parents and numerous volunteer adult leaders.
4. Club and/or community service group task responsibility experience specified for each member.
5. Formal and impromptu public speaking.
6. Regular experience with parliamentary procedure or other formal group process.
7. Maintenance of written records on work done.
8. Participation in publicly staged competitive events.
9. Participation in system of extrinsic achievement rewards, i.e. individual recognition.
10. Formal group identity recognition by public institutions.
11. Group leadership experience is generally common.
12. Strong family support and involvement.

Pigg et al., (1980) categorized the levels of consequences

from participation in 4-H units as:

1. First Order Consequences

- a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental tasks of middle childhood and adolescence.
- b. Interacting with peers.
- c. Engaging in experiential learning.
- d. Learning about career options.
- e. Learning to work.
- f. Learning responsibility.
- g. Learning how to use one's body effectively.
- h. Learning democratic processes.

2. Second Order Consequences

- a. Developing a positive conception of self.
- b. Relating to peers, other youth and adults.
- c. Learning cognitive processes such as concrete and formal operations.
- d. Taking roles.
- e. Clarifying values.
- f. Reflecting dominant community attitudes and beliefs.
- g. Taking responsibility.
- h. Achieving improved work behavior.
- i. Producing and managing income.
- j. Exploring a variety of work related activities.
- k. Acquiring a need for achievement, affiliation, and/or power.
- l. Operating in the economic system.

m. Achieving personal independence.

### 3. Third Order Consequences

a. Improved functioning as members of society.

b. Improved performance in world of work.

c. Improved community functioning.

B. School 4-H Clubs are very similar to community 4-H clubs. The meetings are conducted in the formal school environment, with less parental and adult involvement. The emphasis is generally on subject matter tasks. If the projects are carefully selected, a good teacher is involved, and specific types of activities are selected, the 4-H school club can be a valuable learning experience. Pigg et al., (1980) identified the primary experiential elements of the 4-H school club as:

1. Generally similar to community 4-H clubs except conducted by school staff. Generally less parental and other adult involvement.
2. Some experiential elements as the community 4-H club except for more emphasis on subject matter task. Less time devoted to general group experience.

Pigg et al., (1980) identified the levels of consequences from participation in 4-H school clubs as:

#### 1. First Order Consequences

a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental tasks of middle childhood and adolescence.

b. Interacting with peers.

- c. Engaging in experiential learning.
- d. Learning about career options.
- e. Learning to work.
- f. Learning responsibility.
- g. Learning how to use one's body effectively.
- h. Learning democratic processes.

## 2. Second Order Consequences

- a. Developing a positive conception of self.
- b. Relating to peers, other youth and adults.
- c. Learning cognitive processes such as concrete and formal operations.
- d. Taking roles.
- e. Clarifying values.
- f. Reflecting dominant community attitudes and beliefs.
- g. Taking responsibility.
- h. Achieving improved work behavior.
- i. Producing and managing income.
- j. Exploring a variety of work related activities.
- k. Acquiring a need for achievement, affiliation, and/or power.
- l. Operating in the economic system.
- m. Achieving personal independence.

## 3. Third Order Consequences

- a. Improved functioning as members of society.
- b. Improved performance in the world of work.
- c. Improved community functioning.

C. Project 4-H Clubs are organized around a specific subject in which the members are interested. These 4-H clubs are lead by volunteer adult leaders who use specific learning objectives which have been developed for that particular project. 4-H project clubs tend to be smaller groups with fewer volunteer adult leaders.

Pigg et al., (1980) identified the primary experiential elements of the 4-H project clubs as:

1. Usually smaller groups, focused on one subject matter task area.
2. Same experiential elements except more emphasis yet on subject matter task. Less time and opportunity devoted to general group experience.

Pigg et al., (1980) identified the levels of consequences from participation in 4-H project club as:

1. First Order Consequences
  - a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental tasks of middle childhood and adolescence.
  - b. Interacting with peers.
  - c. Engaging in experiential learning.
  - d. Learning about career options.
  - e. Learning to work.
  - f. Learning responsibility.
  - g. Learning how to use one's body effectively.
  - h. Learning the democratic processes.



## 2. Second Order Consequences

- a. Developing a positive conception of self.
- b. Relating to peers, other youth and adults.
- c. Learning cognitive processes such as concrete and formal operations.
- d. Taking roles.
- e. Clarifying values.
- f. Reflecting dominant community attitudes and beliefs.
- g. Taking responsibility.
- h. Achieving improved work behavior.
- i. Producing and managing income.
- j. Exploring a variety of work related activities.
- k. Acquiring a need for achievement, affiliation, and/or power.
- l. Operating in the economic system.
- m. Achieving personal independence.

## 3. Third Order Consequences

- a. Improved functioning as members of society.
- b. Improved performance in a the world of work.
- c. Improved community functioning.

### **Individual Study**

Individual self-study is the smallest unit of 4-H participation. With this method the member selects the area of interest to study and with the help of volunteer adult leaders, usually parents, carries on the 4-H project

by independently.

Pigg et al., (1980) identified the primary experiential elements of 4-H individual self-study as:

1. No group affiliation, with limited group experience.
2. Usually similar in-depth, structural subject matter task to those of organized 4-H members. Parents usually serve as adult supervisors.
3. Maintenance of written records.
4. Participation in publicly staged competitive events common.
5. Participation in extrinsic awards system common.

Pigg et al., (1980) identified the levels of consequences from participation in 4-H individual study as:

1. First Order Consequences
  - a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental tasks of middle childhood and adolescence.
  - b. Interacting with peers.
  - c. Engaging in experiential learning.
  - d. Learning about career options.
  - e. Learning to work.
  - f. Learning responsibility.
2. Second Order Consequences
  - a. Developing a positive conception of self.
  - b. Relating to peers, other youth and adults.
  - c. Learning cognitive processes such as concrete and formal operations.
  - d. Taking roles.

- e. Clarifying values.
  - f. Reflecting dominant community attitudes and beliefs.
  - g. Taking responsibility.
  - h. Achieving improved work behavior.
3. Third Order Consequences
- a. Improved functioning as members of society.
  - b. Improved performance in the world of work.

### **Special Interest Groups**

Special Interest Groups are much like project clubs in that the members concentrate on one particular subject matter project (i.e., workshops, forums, series of meeting, seminars, tours) in a short period of time. The group is usually taught by volunteer adult leaders who teach subject matter in detail.

Pigg et al., (1980) identified the primary experiential elements of special interest groups as:

1. Generally informal organization centered around common activity or activity series. Generally short term (1 day to 3 months) and subject matter or activity specific.
2. Wide variation in depth and extent of subject matter task on tasks involved. Usually built around introduction to subject matter or a specifically emphasized event.
3. General, task focused adult (or older youth)/youth interaction. Generally few adults involved.
4. Some extrinsic awards may be involved.

Pigg et al., (1980) identified the levels of consequences from participation in 4-H special interest units as:

1. First Order Consequences
  - a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental tasks of middle childhood and adolescence.
  - b. Interacting with peers.
  - c. Engaging in experiential learning.
2. Second Order of Consequences
  - a. Developing a positive conception of self.
3. Third Order Consequences
  - a. Improved functioning as members of society.

#### **4-H School Enrichment**

4-H school enrichment programs are programs planned and conducted by Extension for youth in a school setting, to enrich the school curriculum.

Pigg et al., (1980) identified the primary experiential elements of 4-H school enrichment programs as:

1. Generally less in-depth special interest type activities conducted within the school context. 4-H school enrichment curriculum is usually 1 day to 2 weeks in duration, subject matter or event specific and supervised by a teacher or paid staff.

Pigg et al., (1980) identified the levels of consequences from participation in a 4-H school enrichment program as:

1. First Order Consequences
  - a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental

- tasks of middle childhood and adolescence.
- b. Interacting with peers.
- c. Engaging in experiential learning.
- 2. Second Order of Consequences
  - a. Developing a positive conception of self.
- 3. Third Order Consequences
  - a. Improved functioning as members of society.

#### **4-H Camps**

4-H camps are youth camps (day camps, weekend camps, special purpose camps, etc.) planned and conducted by Extension. Courses often include nature studies, outdoor recreation, health, livestock, electric, conservation, and leadership.

A. Traditional 4-H Camps are usually on to two week summer camp programs. Generally highly structured and organized by paid staff.

Experiential elements were identified (Pigg et al., 1980) as:

1. Varied subject matters emphasizing recreation.
2. Heterogeneous group activity and living experience.
3. Non-home living experience.
4. Formation of group identity via concentrated shared experiences.

B. Special purpose 4-H camps usually are for 1 to 5 days, emphasizing concentrated introduction to specific

subject matter.

Experiential elements are identified (Pigg et al., 1980)

as:

1. Concentrated subjected matter ranging from introductory to more advanced group focus.
2. More homogeneous group experience.
3. Non-home living experience.
4. Extensive adult/group youth task focused interaction.

C. 4-H Day Camps are usually three days to two week special interest activities conducted at a local community or neighborhood site. May be a full day or partial day, with an introductory subject matter and recreational activities.

Experiential elements are identified (Pigg et al., 1980)

as:

1. More homogeneous group experience.
2. Varied subject matter and recreation activities.
3. Away from home day activities.
4. Direct adult/youth group interaction.

Pigg et al., (1980) identified the levels of consequences from participation in 4-H camps are:

1. First Order Consequences
  - a. Acquiring knowledge and certain psychomotor skills necessary for achieving developmental tasks of middle childhood and adolescence.
  - b. Interacting with peers.

- c. Engaging in experiential learning.
- d. Learning responsibility.
- e. Learning how to use one's body effectively.

## 2. Second Order Consequences

- a. Developing a positive conception of self.
- b. Relating to peers, other youth and adults.
- c. Learning cognitive processes such as concrete and formal operations.
- d. Taking roles.
- e. Clarifying values.
- f. Reflecting dominant community attitudes and beliefs.
- g. Taking responsibility.

## 3. Third Order Consequences

- a. Improved functioning as members of society

### **Instructional 4-H TV**

Instructional 4-H TV program series, educates youth on nutritional education through the program series - Mulligan Stew. Viewing groups are formed in schools, community facilities, neighborhood family groups and by individuals. The youth who sign up for the program receive a packet of materials and instructions on things to do and things they should learn.

Experiential elements are identified (Pigg et al., 1980) as:

1. Introductory scale subject matter information.

2. General entertainment.
3. Role-modeled behavior.

### **Volunteer 4-H Adult Leaders**

One of the key dependent variables in this study is previously or currently serving as a volunteer 4-H adult leaders. Schwertz (1978, p. 23) stated that "one Extension agent working directly with youth could reach about 200 4-H members" while ... "working directly with volunteer 4-H leaders ... the same agent could reach about 500 to 800 4-H members and have about 40 volunteer in the 4-H program". There have been a numerous studies that have reported who was the typical volunteer 4-H adult leader. Hass (1979) reported that the results of a mail questionnaire to 505 (546 mailed) first year Saskatchewan 4-H leaders, indicated the following: (1) average age as 39.8 years, (2) completed 10.4 years of school, (3) married, (4) averaged 3 children, (5) 16 percent had parents who were 4-H leaders, (6) 7 percent were 4-H alumni, and (7) 85 percent involved in other community organizations. Smith and Bigler (1985) reported that in 1979 there were 20,770 volunteer 4-H leaders in Ohio with 5,837 being first year leaders. Of these first year 4-H leaders 3,324 (57%) completed a second years as 4-H leaders and 1,675 (29%) a third year. Those 4-H leaders who continued as



leaders (1) had a mean age of 39 years, (2) had more children in 4-H, (3) lived on a farm, and (4) reported a longer tenure as 4-H leader than discontinuing 4-H leaders.

Using a questionnaire (mail) to survey 590 low income 4-H leaders, Camasso, Heinsohn, and Lewis (1983) reported that the average low income 4-H leader was: (1) female, (2) between 30 and 39 years age, (3) married, (4) had 2 children, (5) lived in a rural community, (6) had a high school education, and (7) was unemployed. Richard (1983) who personally interviewed 108 4-H leaders in the Acadian Extension District of Louisiana reported: (1) an average age of 37 years, (2) length of tenure as a 4-H leaders as 6.5 years, (3) had a college degree, and (4) 72 percent were 4-H alumni.

Other studies reported the reasons for volunteering as a 4-H adult leaders. Byrne and Caskey (1985, p. 5) listed reasons for volunteering as a adult 4-H leader as: (1) having children in 4-H, (2) enjoyed working with children, (3) liked the opportunity for achievement and new challenges, (4) liked being with other 4-H participants, and (5) felt that the 4-H program strengthened their family.

These studies have been valuable in helping the Cooperative Extension Service identify those adults who are most likely to serve as volunteer 4-H adult leaders.

The next step in evaluating volunteer 4-H adult leaders is determining the affect their youth experiences had on their involvement in the 4-H program. This study took an indepth look at volunteer 4-H adult leaders to determine the affects participation in youth development program(s) has on future involvement in the 4-H program as volunteer 4-H adult leaders.

### **Impact Characteristics of 4-H Program Participation**

Pigg et al., (1980) reported that the primary distinctions between 4-H and other youth development programs are:

1. In areas of program curriculum, 4-H is intentionally educational and skills focused.
2. 4-H incorporates and preserves a program development and implementation process that requires considerable involvement of local volunteers and focuses on the needs and interests of local participants.
3. In no other youth organization or program besides 4-H does the adult volunteer and parent play such a central role in the educational activity.

The 4-H program has its greatest aggregate impact on youth age 12 and under (Pigg, et al., 1980). Data from a Gallup Organization, Inc. (1977) study of 4-H participation indicated that:

1. 4-H families are generally wealthier than other U.S. families with children under the age of 18.
2. 4-H families are more likely to be in middle and upper income brackets.

3. 4-H participants are more often to reside in non-metropolitan areas.
4. 4-H participants tend to be between the ages of 9 and 12 years old and the majority are females.

A Gallup Organization, Inc. (1979) poll of adults who indicated that they participated in the 4-H program as a member revealed:

1. Those under age 50 were somewhat more likely (12%) to have participated than those over age 50 (6%).
2. Farmers were more likely (26%) than people in other occupations to have participated.
3. Analysis by occupation revealed that farmers are more likely (63%) than people in other occupations (8% among manual laborers) to have had children who participated in some 4-H activities.
4. Those living in communities with less than 2,500 people were more likely (17%) to have participated as a member than respondents from larger communities.
5. Households with four or more people were more likely (12%) to have participated than single person households (4%).
6. Most respondents (82%) reported they had never participated in 4-H programs, while 10 % said they had participated as a 4-H member, and 2 % reported participating as an adult leader or as a member/ adult leader (1%).
7. Most parents (87%) reported that their children had not participated in any 4-H activity.
8. Those who did report that their children had participated in some type of 4-H program, were more likely to have participated in a 4-H club with a 4-H project (5%) while, others reported school enrichment (3%), short-term or special interest (2%), day-camp (2%), or television series (1%).

9. People from the south (14%) were somewhat more likely to have participated than those for the northeast (6%).
10. Parents over age 35 and parents living in communities with less than 2,500 people are more likely than their counterparts to have children who have participated in 4-H.

Using a telephone interview with a national randomly selected sample of individuals, which included 710 4-H alumni, 743 alumni of other youth organizations, and 309 nonparticipants of youth organizations Ladewig and Thomas (1987) reported the following:

1. 4-H alumni and alumni of other youth programs were more alike than nonparticipants in terms of their race, age, level of educational attainment, high school achievement, employment status, total family income, and number of children participating currently in youth programs.
2. 4-H alumni were reared primarily in rural areas (53%) and were more likely to have children in a 4-H program, while alumni of other youth programs were reared primarily in urban areas (60%) and were more likely to have children in different youth programs.
3. Non4-H'ers primary reason for not joining 4-H was the lack of availability of a 4-H program and one-fourth said that 4-H did not meet their interests.
4. 4-H alumni most valued the inputs and teachings of adult volunteer leaders, family members, and clubs meetings.
5. For 4-H alumni who also participated in other youth programs, a slight majority rated other youth programs over 4-H in developing leadership skills and receiving responsibilities, while a slight majority rated their 4-H experiences higher in gaining knowledge and skills and developing a feeling of self-worth.

6. The most useful experiences for both 4-H alumni and other participants came from contact with other people in the organization, while opportunities to develop skills and make a contribution to the organization were highly rated by both groups.
7. More recent 4-H alumni (1975-85) placed higher value on leadership opportunities than did those of earlier years.
8. The largest contributions to personal development for both alumni groups were learning to work with others and developing a sense of responsibility.
9. 4-H alumni seemed more satisfied with their organizations' contributions to their personal development than did alumni of other youth organizations.
10. The more involved the individual in planning and decision-making, the more challenges and responsibilities the individual incurred.
11. The strongest contribution to personal development was experiences contributing to self-esteem--self-confidence and responsibility.
12. The benefits of knowledge and skills gained had a lasting impact on respondent attitudes toward the youth organizations to which they belonged.
13. 4-H alumni tended to be more involved in community activities and 4-H leadership positions than alumni from other youth programs, particularly former nonparticipants of youth programs.
14. The average age which respondents joined youth organizations was 10.6 years of age for 4-H alumni and 9.5 years of age for other participants.
15. 4-H alumni participated in the 4-H program for an average of 4 years while other youth program alumni participated for an average of 6 years.
16. 4-H alumni who stayed in 4-H the longest were most likely to have joined at an early age, resided in a rural area, lived in the south/north central states, and were male.

17. Alumni of other youth programs, those with longer membership came from those who joined early, were females, resided in urban areas, and lived in the northeast/west regions of the country.
18. Of the factors impacting on life skills, the most dominant variable for both alumni groups was years of participation, followed by entry age, and the sex of the respondent.
19. Generally, those who were participants for a longer period of time, joined at an early age, and were female were more satisfied with the challenges and responsibilities incurred, personal development attained, and directions taken by the organization in which they held membership.
20. The era of participation had a positive effect on 4-H alumni's attitudes about their experiences.
21. 4-H alumni who participated in the early years of the 4-H program seemed to be the most satisfied with their experiences.
22. For 4-H alumni, satisfaction with their program's challenges and responsibilities had the most significant, positive effect on the achieved level of schooling and grades.
23. For alumni from other youth programs, respondents with urban backgrounds had more educational achievement while those with less satisfaction from their participation in youth programs made better grades.
24. 4-H alumni were more active in their community than both alumni of other youth programs and nonparticipants.
25. Among 4-H alumni, the oldest and most educated respondents were the most active in their community, especially in church and Extension contacts.
26. Adult activity of alumni of other youth programs was attributed to their years of participation, years since participation in youth programs (program era), and residence in the South and North Central regions of the U.S.

## Summary

4-H is a youth development program that has evolved in the last 80 plus years from technology diffusion agency, to a vocational preparation program, to a value based socialization organization, and to a information based expansion institution.

The components and development of the 4-H program is very similar to the development of experiential education in the United States. Whether 4-H was intentionally developed into an experiential education program or did it become experiential quite by accident, it is clear that conservative rural and urban industrialization social forces moved the program toward a learn-by-doing philosophy.

4-H has seven units of participation: (1) clubs (organized, projects, school), (2) individual self-study, (3) special interest, (4) curriculum enrichment, (5) camps, (6) television (TV), and (7) collaboration with other youth groups. The consequences of participation in these 4-H units leads to the development of youth life skills.

A number of studies (Gallup, 1979 and Ladewig and Thomas, 1987) have reported the description of those who participant in the 4-H program and the impact of participation in the 4-H program by youth. This study will investigate 4-H leaders (organizational leaders, project

leaders, activity leaders, and junior/ teen leaders who were:

1. 4-H alumni only
2. Alumni of other youth organizations only
3. Alumni of both the 4-H program and other youth programs
4. Nonparticipation in youth organization.

The following variables (youth life skills developed, personal characteristics, youth program experiences, and community participation) will be measured to find any correlation between these variables and the type of youth program membership and becoming a 4-H volunteer leader.



## CHAPTER III

### METHODOLOGY

This study was part of a nationwide effort entitled The 4-H Alumni Study (Ladewig and Thomas, 1987) and conducted by the Texas Agricultural Extension Service in cooperation with the Department of Rural Sociology of the Texas Agricultural Experiment Station. The methodology was developed to accomplish two tasks: (1) select a sample which was representative of former 4-H members and of the American public, and (2) conducting data collection in a standardized manner.

A set of questions was developed to be covered in a telephone survey instrument by the national 4-H Impact Study Committee. The questionnaire was pretested with a random sample of 25 individuals (selected from 4-H members in the Central Extension District in Texas) to determine reliability of the survey instrument. Approval of the final version of the questionnaire and its validity was given by the National 4-H Impact Study Committee. The National 4-H Impact Study Committee consisted of State 4-H Leaders, selected Extension 4-H Specialists, representatives from ES-USDA (Evaluation and 4-H Program), and behavioral scientists with expertise in evaluation research (Ladewig and Thomas, 1987). A copy of the survey questionnaire appears in Appendix A.

The focus of the survey was on adults who were (1) 4-H members, (2) members of other youth programs, (3) members of both 4-H and another youth program(s), and (4) youth with no youth program experience. The telephone survey was developed to measure respondents' perception of their 4-H experience or youth organization experience in the following:

1. Sources of project information
2. Participation in youth organization events/activities
3. Challenges and responsibilities
4. Contribution to personal development
5. Social interpersonal skills development

Respondents were also surveyed on the following:

1. Personal characteristics
2. Participation in community organizations as an adult
3. Participation as a volunteer 4-H leader as an adult

## **SAMPLE DESIGN**

The population sample for this study was the general United States population who had telephones with businesses and institutions eliminated. The U. S. Bureau of the Census (1976, p. 533) estimated that 95 percent of households in the United States have telephones.

The sampling frame was drawn by a representative of the Institute of Statistics, North Carolina State University and the sampling list list was obtained from the Survey Sampling Incorporated of Hartford, Connecticut.

A sample quota of 400 was planned for each of the four administrative regions (northeast, south, north central, and west) of the Cooperative Extension Service. Half of the sample would be selected because they had participated in 4-H. Consequently, among the total sample of 1600 individuals, 800 (200 in each region) respondents with 4-H experience could be compared with 800 who had no 4-H experience. In anticipation that all individuals in each sample would not participate in the study and that they would not be equally divided between 4-H and non 4-H experiences, five additional samples, each having 400 names and telephone numbers, were randomly selected for each region. Each region of the U.S. therefore had six randomly selected samples or replicates with a total of 2,400 individuals who could be contacted to produce the desired sample quota of 400 completed interviews per region.

## **DATA COLLECTION**

The Survey Research Center at Texas A&M University conducted the telephone survey in October of 1985. Interviewers were hired, trained, and given time to practice during a two week period in September. As reported in Ladewig and Thomas (1987), the following procedure was developed to standardize data collection:

1. Interviewing was conducted Monday through

Thursday, from 5:30 to 8:30 p.m. (Central Standard Time). These hours were adjusted to other regional time zones.

2. Three telephone attempts were executed for each sample member until sample member was contacted. After 3 attempts and no contact, the sample member was excluded from the replicate sample.
3. Working with one replicate at a time, interviewers attempted to complete first contact efforts, before proceeding to second efforts and complete second contact efforts before proceeding to third contact efforts.
4. After each contact effort, an interviewer recorded one of the following results: (1) completed interview; (2) refusals; (3) callback; (4) no answer; (5) busy signal; (6) disconnected number and (7) non-residential number.
5. If an adult head of household answered the telephone, that person was interviewed. No effort was made to interview others in the household.
6. When a busy signal was received, the interviewer returned the phone call every 5 minutes for 15 minutes. This represented one effort. If no contact as made, the second effort was made on the next day.

The following procedures were used when quotas were completed and before all the names in a replicate had been contacted:

1. Interviewers continued using the remainder of names in the replicate until they had made 3 attempts to contact and interview each name.
2. Screening and interviewing of 4-H alumni was conducted until a replicate of names was completed; if the 4-H quota had not been completed, then another replicate was begun. Individuals with no previous 4-H experience were not interviewed.

## STATISTICAL ANALYSES

This study will attempt to identify the impact of selected variables on respondent participation as volunteer adult leaders in the 4-H program. Analysis of data was conducted in several ways. Factorial analysis involves the examination of potential or hypothesized relationships among several variables and to explore for potential factors that would account for observed patterns of covariation. For this study, the observed patterns relate to the quality of life skills developed in both respondents who participated in 4-H and other youth development programs. Each life skill (competency, coping, and contributory) was submitted to factor analysis.

## OPERATIONAL VARIABLE DEFINITIONS

### Competency Life Skills

Former participants of the 4-H program and other youth programs were asked how often they experienced each of six challenges or responsibilities. For each challenge, respondents indicated on a scale of 1 to 5 whether they (1) never, (2) seldom, (3) occasionally, (4) often, or (5) very often encountered it. These challenges were presented as: (1) How often were you given challenging tasks? (2) How often were you included in making important

decisions? (3) How often were you involved in planning club activities? (4) How often did you have freedom to develop and use your own skills? (5) How often did you feel you made a contribution? (6) How often were you given an opportunity to lead others?

### **Contributory Life Skills**

Increasing sharing and social contribution skills can occur in many ways. Former youth program participants were presented twelve ways and asked to rate each on a scale of 1 to 5 with one being of no contribution and five being of great contribution. The levels were: (1) Developing personal pride in achievements and progress, (2) Developing self-confidence, (3) Learning to work with other, (4) Developing leadership skills, (5) Developing the ability to communicate effectively, (6) Acquiring skills necessary for employment, (7) Learning the importance of good nutrition, (8) Learning to select and construct articles of clothing and/or home use, (9) Gaining understanding of how factors of production, processing, marketing, and distribution of agricultural products affect the well-being of our nation, (10) Developing a sense of responsibility, (11) Setting personal goals, and (12) Involvement in community activities.

### Coping Life Skills

The final series of questions addressed former participants' attitudes about the youth program of which they were members. Alumni of 4-H were presented a list of nine statements about activities and direction of the 4-H program. Participants in other youth programs were presented a similar list (indicated by the asterisks) with six statements whose wording had been modified to apply to non 4-H programs. For each statement, they were to indicate if they strongly disagreed, slightly disagreed, slightly agreed, or strongly agreed with it. These statements were: (1)\* The 4-H program placed too much emphasis on competition and awards, (2)\* 4-H had little to offer Junior High and High School youth, (3) There was no need for a 4-H camping program, (4)\* 4-H kept young people busy and out of trouble more than most other youth programs, (5)\* Parents and leaders benefited in learning from 4-H projects, (6) 4-H opportunities beyond the club and county were a positive factor in participating in 4-H, such as activities, events, awards, and trips, (7)\* The awards program in 4-H was a positive incentive that kept members in 4-H, (8)\* Knowledge and skills gained through 4-H have benefited 4-H members in their adult life, and (9) Agriculture and home economics should continue to be the base of 4-H projects. Because the first three

statements were worded negatively, their scale values were reversed for the factor analysis.

### **Life Skills Factor Scores**

Factor analysis was applied to the series of questions that made up competency, contributory, and coping youth life skills. The principal-axis factor method was applied to each set of variables to determine if the life skills variables in that series were so highly interrelated that they form a single factor. Such a factor would be a collective representation of all the variables that are correlated with the life skills factor and could be used as a unique variable reflecting the quality of that experience. Ladewig and Thomas (1987) identified several conditions for this factor method:

1. The factor would require an eigenvalue of 1.0; this is an indicator of the variation in respondent ratings of quality of experiences accounted for by the factor.
2. None of the factors variables could be correlated highly with factors that also might be produced; these secondary factors would have a different conceptual meaning, thereby resulting in interpretive confusion if a variable were shared or highly correlated with more than one factor.
3. For a factor to be used in subsequent analyses, a single factor value would have to be calculated for each set of life skills variables for each respondent.

As reported in Ladewig and Thomas (1981), to accomplish this factor analytic task, the factor analysis procedure



employed by the Statistical Analysis System (SAS) calculated standardized scores for each variable associated with the factor. These scores proportionately weighted each variable according to the magnitude of its association to the overall factor. A variable's standardized score was then multiplied by a former participant's response to the question for that variable. After the standardized score was computed for each variable, the products were added to produce a single factor value for a former participant for each of the three factor concepts. The higher the score the more important or positively perceived were the experiences and activities of 4-H and other youth programs.

### **Youth Program Experiences**

Respondents were asked a variety of questions which related to their youth program experiences. 4-H alumni were asked for the following responses: (1) entry age into 4-H, (2) years participated in 4-H, (3) did you complete a 4-H project, (4) were you a club officer or a committee member, and (5) were you a participant in the following: (a) community service project, (b) livestock shows and fairs, (c) contests, (d) exchange programs, (e) national trips). Other youth program participants were asked the following youth program experiences: (1) entry age into a

youth program, (2) years participated in a youth program, (3) were you a club officer or a committee member, and (4) were you a participant in the following: (1) community service project, (2) exchange programs, and (3) national trips).

### **Units of 4-H Participation**

Alumni of the 4-H program have participated in a variety of different methods program participation. Types of 4-H participation units are: (1) school club, (2) community club, (3) project club, (4) school enrichment, (5) 4-H camp, and (6) individual study.

### **Sources of Project Information**

4-H alumni were presented with eight sources of project information and asked to rate each on a scale of 1 to 5 with one being of no help and five being very helpful. The sources of project information were: (1) project manuals, (2) adult 4-H leaders, (3) teen or junior leaders, (4) family members, (5) county Extension agents, (6) books and magazines, (7) 4-H club meetings, and (8) workshops, clinics, and tours. Other youth program alumni were asked about project information from their club meetings.

### **Personal Characteristics**

4-H alumni only, 4-H alumni and other youth program

alumni, and other youth program alumni only were asked a variety of questions to determine certain personal characteristics. Four-H alumni only, and other youth program alumni, and other youth program alumni only were asked the following background characteristics: (1) residence most of life, (2) academic accomplishment, (3) academic achievement, (4) employment status, (5) do you have an agricultural related job, (6) number of children, (7) number of children 9 years of age or older, (8) number of children who have or are currently participating in the 4-H program, (9) number of children currently participating as a member of another youth program, (10) total family income, (11) racial/ethnic status, (12) sex, and (13) present age.

### **Adult Community Participation**

Adult community participation was used as an indicator of sharing skills. Scales were constructed to measure the number of organizations and programs to which individuals belonged (scope) and their levels of participation (intensity).

4-H alumni only, 4-H and other youth program alumni, and other youth program alumni only were asked about their participation in community groups during the past two years. Seven groups were identified: (1) civic and

luncheon clubs, (2) chamber of commerce, (3) a committee concerned with community affairs, (4) an agriculturally related group, (5) a political organization, (6) an industrial foundation, and (7) a church group. For each community group, respondents were given, respectively, a score of one if they were a member, a score of two if they attended at least 25 percent of the meetings, and a score of four if they were an officer of the community group. These values were then summed to produce a range of odd-numbered scores from 0 (no participation) to 7 (a member who attended at least a quarter of the meetings and served as an officer). An overall community score was then calculated by adding the individual community-group scores. This produced a scale with values ranging from 0 to 42.

A final scale was calculated to measure the degree of involvement with programs and services of the county office of the Cooperative Extension Service. Six areas of interaction were presented to which respondents indicated their frequency of involvement as: (a) never, (b) one or twice a year, (c) three to five times a year, (d) every month, or (e) at least one a month. These six areas were:

1. Attend educational programs sponsored by the Extension Service.
2. Consult Extension Agricultural Agents for help with agricultural/gardening/landscaping problems.

3. Consult Extension Home Economist for help with consumer/home related matters.
4. Listen to Extension radio programs.
5. Read news articles written by Extension personnel.
6. Receive Extension newsletters.

As reported in Ladewig and Thomas (1987), after each adult community participation score was constructed, its reliability was tested by Cronbach's alpha (1951). This reliability procedure measured the internal consistency of scale items.

### **Youth Score**

The youth score variable was constructed by giving each respondent a score of 1000 if they were a previous member of the 4-H program and a previous member of another youth program, a score of 100 if they were a previous member of the 4-H program only, and a score of 10 if they were a previous member of another youth program only. Since non youth program participants were not surveyed about their life skills development, they were not included in this scale. This produced a linear metric scale with values ranging from 1000 to 10. The higher the score the more involved in youth organizations.

### **4-H Leader Score**

The 4-H leader score was constructed by giving each

respondent a score of 1000 if they have been or are currently serving as a 4-H organizational leader, a score of 100 if they have been or are currently serving as a 4-H project leader, a score of 10 if they have been or are currently serving as a 4-H activity leader, a score of 10 was also given if the respondents indicated that they have been or are currently serving as a 4-H junior or 4-H teen leader, and a score of 1 if they indicated they have been or are currently serving as a other type of 4-H leader. This produced a linear metric scale with values ranging from 1000 to 10. The lower the score the less involved in volunteer 4-H leadership.

## **PATH ANALYSES**

Following the correlation matrix to determine associational relationships, selected variables were selected to be analyzed in further path models. By using the standard path theorem, the original zero-order correlations between any two variables can be decomposed into direct and indirect effects and represented by path coefficients. Each path coefficient reflects the magnitude of the direct effect of that particular variable on the dependent variable with the other variables in the path considered simultaneously in the multiple regression equation. The magnitude of the coefficient is an estimate of the net degree of change in the dependent variable that

would result from a one standard deviation change in the independent variable. The greater the coefficient, the greater the change in the dependent variable, hence; the more powerful the independent variable. Indirect effects are the effects on a dependent variable produced by an independent variable while mediated by some intervening variable(s). The total strength of the relationship or total explained variation among independent and dependent variables is indicated by the magnitude of the  $R^2$  statistic.

In this study, standardized path coefficients were used to make comparisons between different variables within a causal model applied to a mutual group of respondents. The coefficients convert variables to the same measurement metric. Tests of significance were conducted for each comparison.

The final comparisons in this study were comparing across different types of youth program membership: (1) membership in 4-H only, (2) membership in both 4-H and another youth program, and (3) membership in another youth program only. When comparisons across different types of youth program membership, unstandardized regression coefficients were used (Specht and Warren, 1976; Schoenberg, 1972). Tests of significance were conducted for each comparison.

A path analysis model was developed for 4-H alumni, non 4-H alumni, 4-H program alumni only, for both 4-H and other youth program alumni, and other youth program alumni. Variables in each path model were subjected to a correlation matrix to determine their associational relationship with other components of the path model. Standardized regression coefficients were used for comparisons between different variables within a causal model applied to a mutual group of respondents. The standardized coefficients convert variables to the same measurement metric. Tests of significance were conducted for each comparison.

Finally, unstandardized regressions coefficients (Specht and Warren, 1976; Schoenberg, 1972) were made to compare the different types of program membership: (1) membership in both 4-H and another youth program, (2) membership in 4-H only, and (3) membership in another youth program only. Tests of significance were conducted for each comparison.

### **Life Skills Development and 4-H Leader Path Model**

The first section of this study looked at life skills development and 4-H leader path analysis models. Figures 2 and 3 represent those respondents who identified themselves as either 4-H alumni or non 4-H alumni.

Figure 2 represents the path analysis model for alumni of



the 4-H program. The path model for 4-H program alumni is divided into four outcomes: (1) the impact of youth program membership (4-H Score), units of 4-H participation, 4-H program experiences, and sources of 4-H project information on the development of youth life skills, (2) the impact of youth life skills developed on adult community participation and involvement as a 4-H volunteer adult leader, (3) the impact of respondent personal characteristics on adult community participation, and (4) the impact of youth program membership (4-H Score), youth life skills developed, and adult community participation on involvement as a 4-H volunteer adult leader.

Figure 3 represents the path analysis model for non 4-H alumni. The non 4-H model is divided into four slightly different program outcomes: (1) youth program experiences and sources of youth project information on the development of youth life skills, (2) the impact of youth life skills developed on adult community participation and involvement as a 4-H volunteer adult leader, (3) the impact of personal characteristics on adult community participation, and (4) the impact of youth life skills developed and adult community participation on involvement as a 4-H volunteer adult leader.

The second section of this study expands on the 4-H alumni and non 4-H alumni models. This analysis looks further

Figure 2.

## Path Analysis Model for 4-H Program Alumni

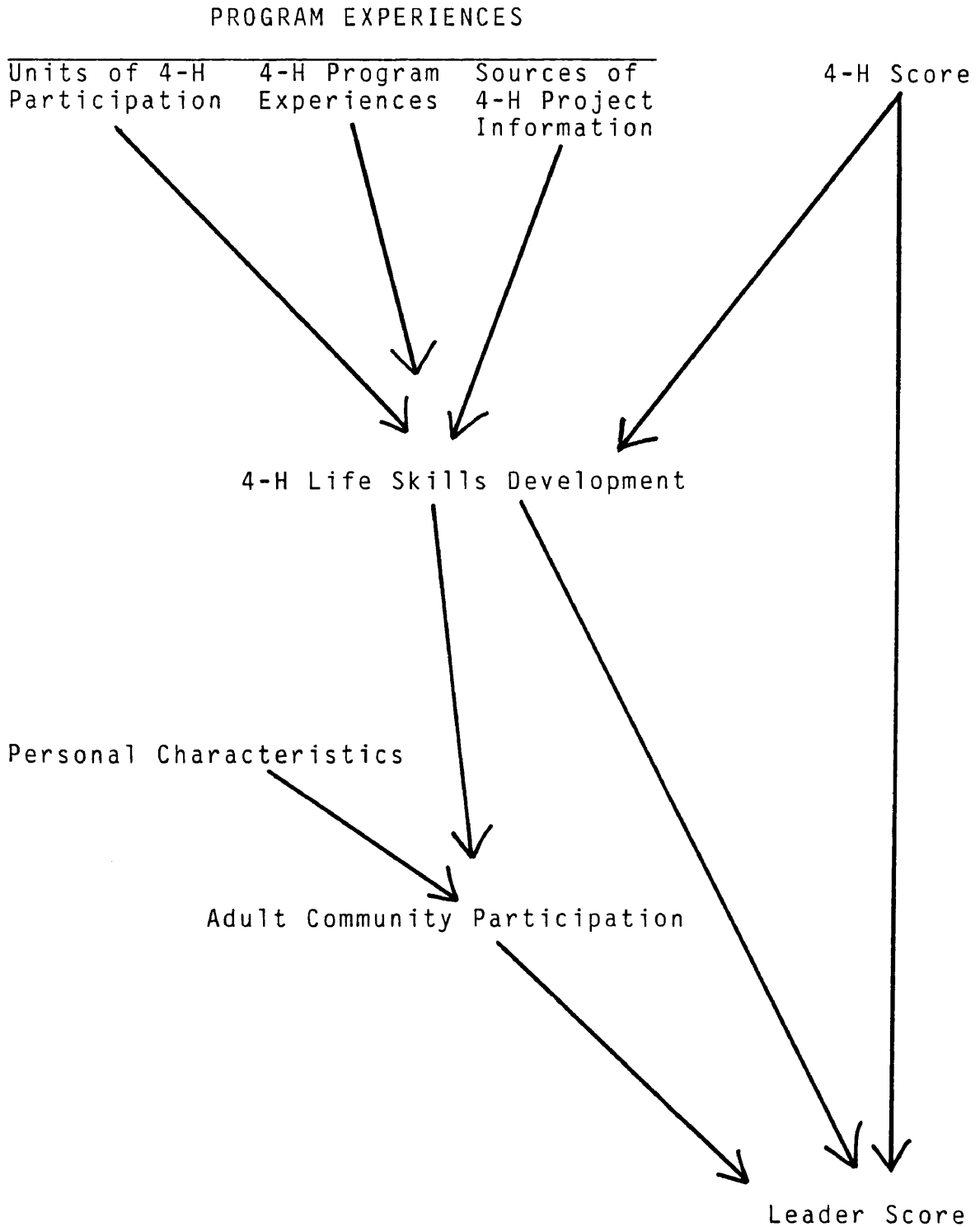
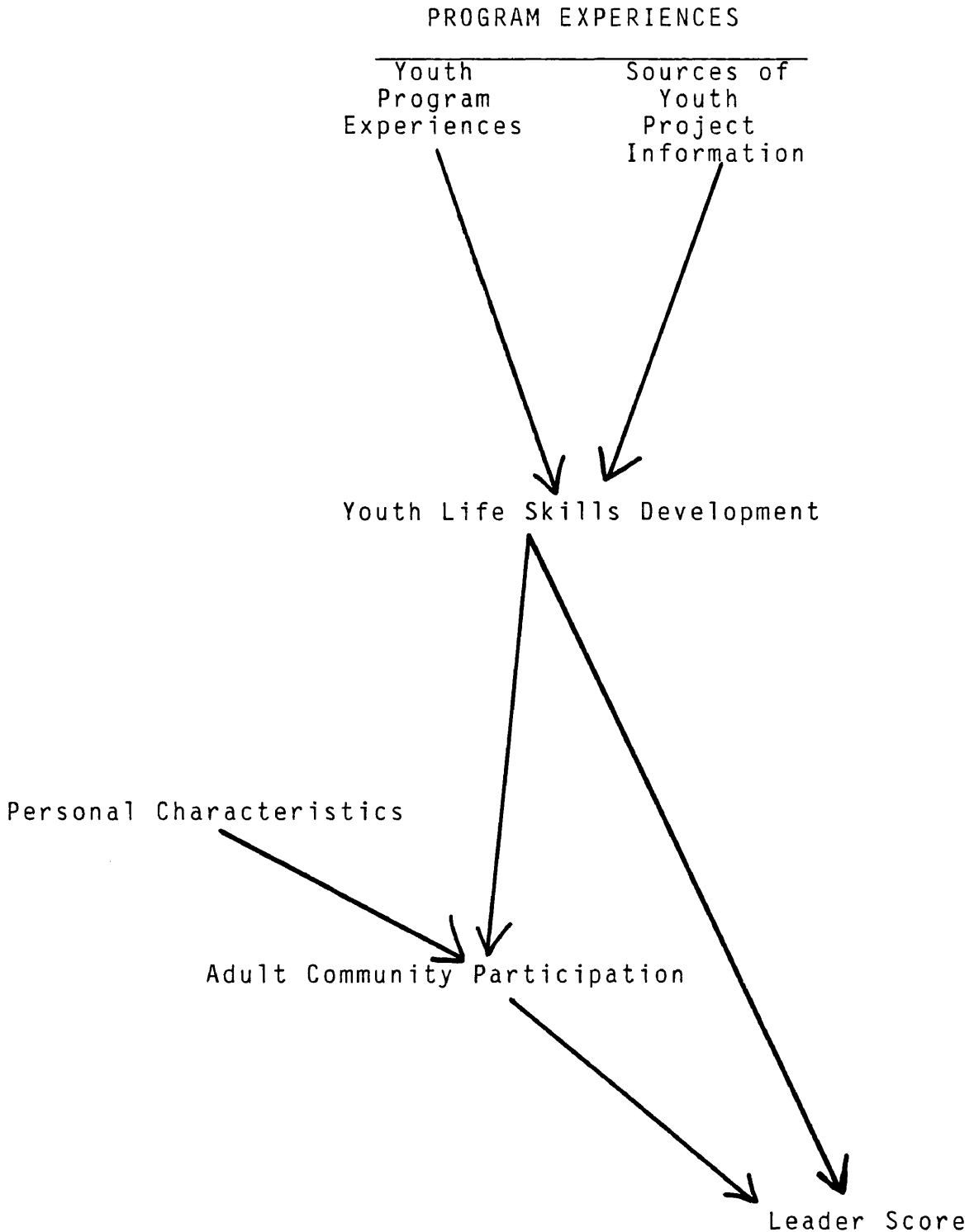


Figure 3.

Path Analysis Model for Non 4-H Youth Program Alumni



into the different types membership in youth programs. Figures 4, 5, and 6 respectively diagram the path analysis models for youth who were members of the 4-H program only, youth who were members of both 4-H and another youth program, and youth who were members of another youth program only.

Figure 4 represent the path analysis model for youth who had membership in the 4-H program only. The path model addresses variables for 4-H program participants only that are believed to impact on life skills development and later involvement in the 4-H program as a volunteer adult leader. The path models addressed include:

1. The impact of 4-H program experiences on life skills (coping, competency, contributory) development.
2. The impact of youth program membership on life skills development.
3. The impact of life skills development on future participation as a volunteer 4-H adult leader.
4. The impact of life skills development on future adult community participation.
5. The impact of background characteristics on future participation as a volunteer 4-H adult leader.
6. The impact of background characteristics on future adult community participation.

Figure 5 represents the path analysis for membership in both the 4-H program and another youth program. The path model addresses variables of 4-H and another youth program(s) membership that are believed to impact on life

Figure 4.

Path Analysis Model for Membership in the 4-H Program Only

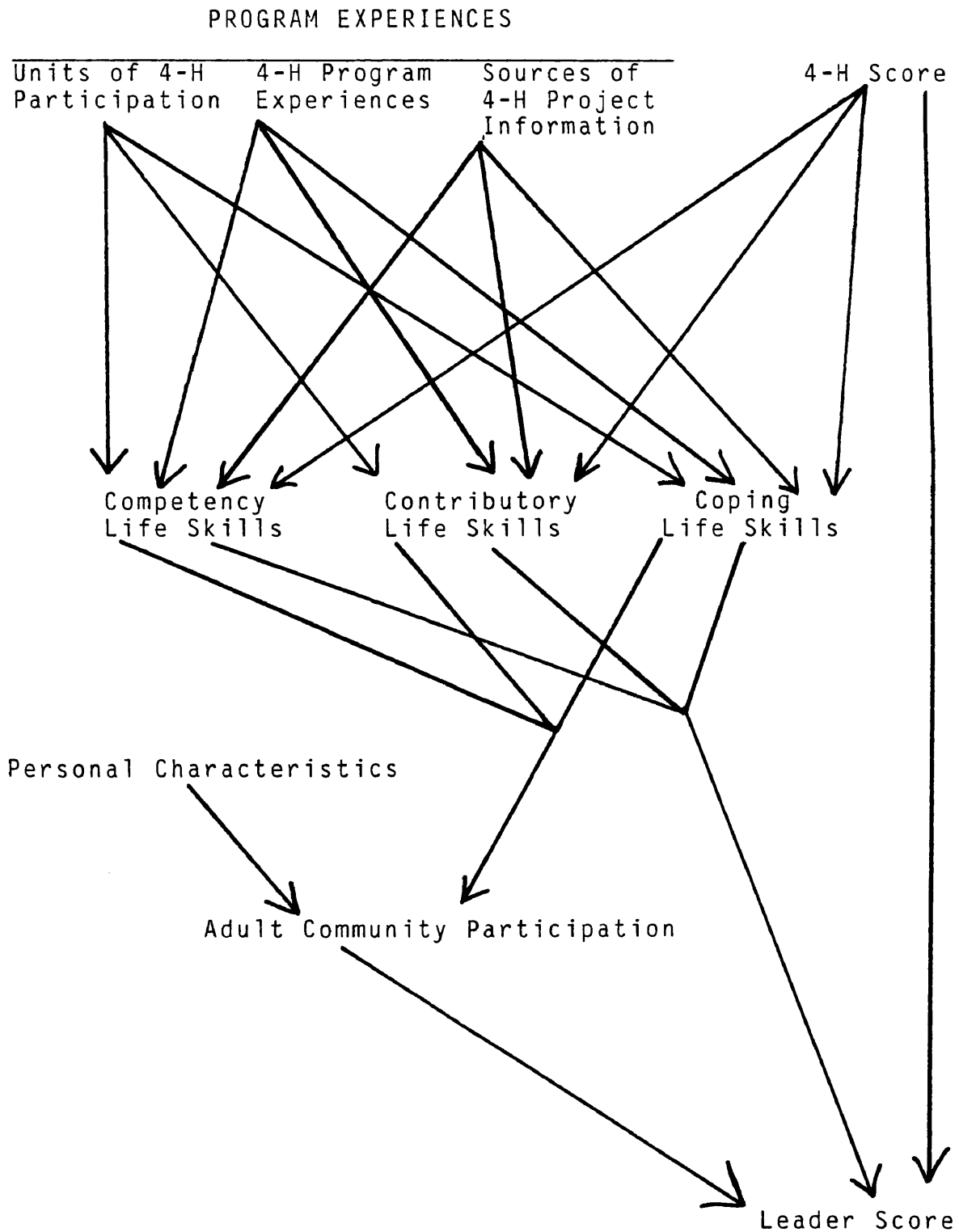
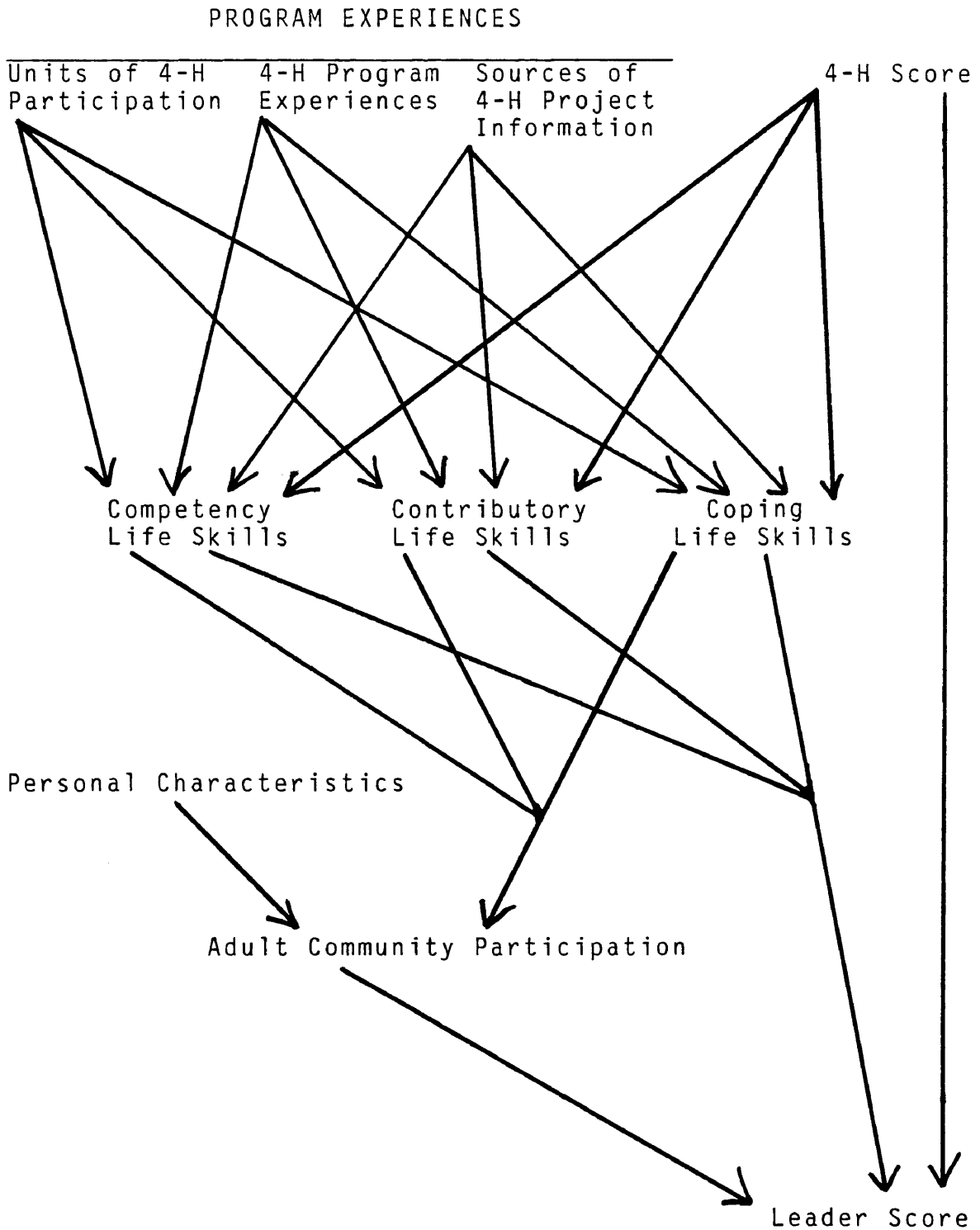


Figure 5.

Path Analysis Model for Membership in Both the 4-H Program and Another Youth Program.



skills development and later involvement in the 4-H program as a volunteer adult leader. The path models addressed include:

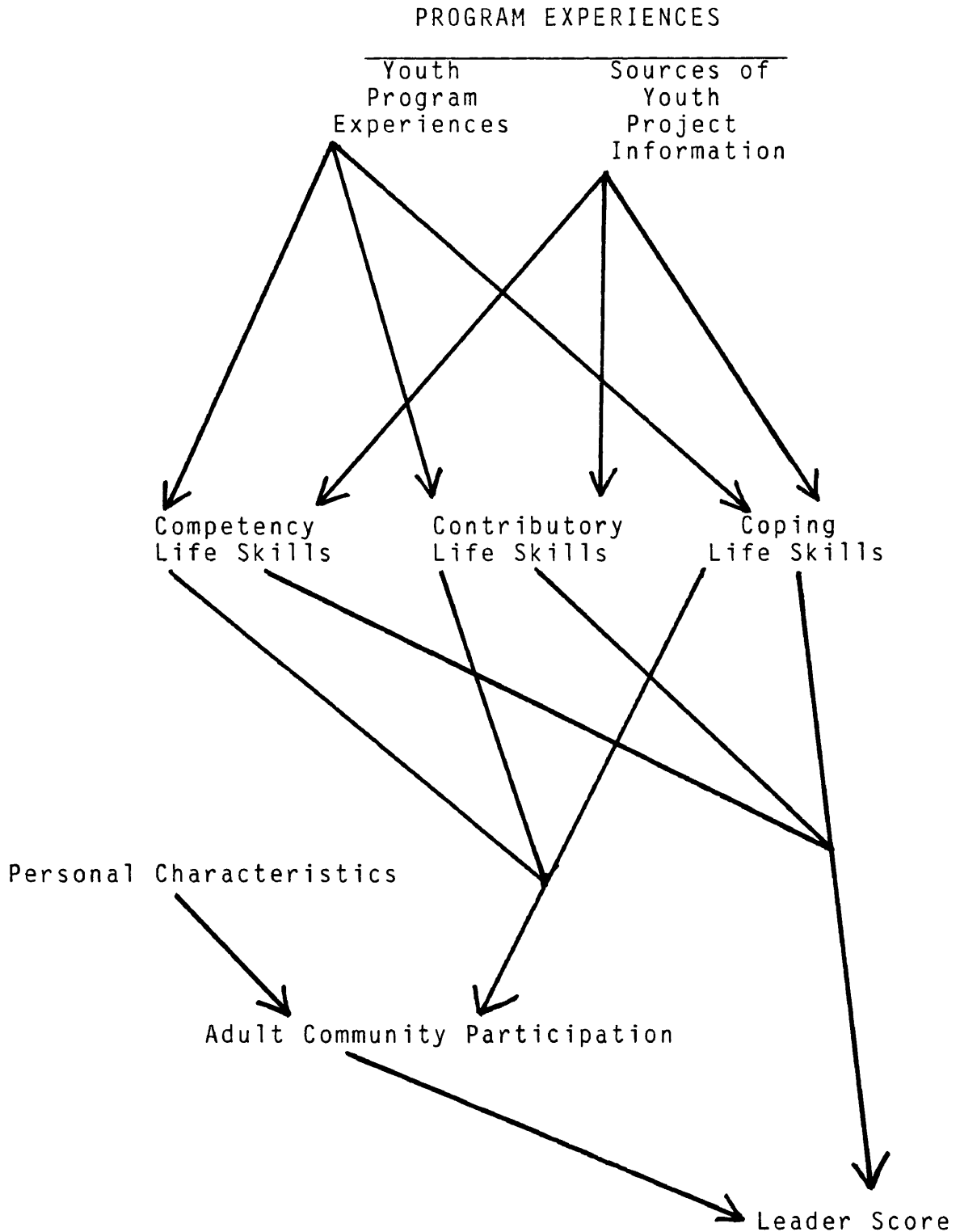
1. The impact of 4-H program experiences on life skills (coping, competency, contributory) development.
2. The impact of youth program membership on life skills development.
3. The impact of life skills development on future participation as a volunteer 4-H adult leader.
4. The impact of life skills development on future adult community participation.
5. The impact of background characteristics on future participation as a volunteer 4-H adult leader.
6. The impact of background characteristics on future adult community participation.

Figure 6 represents the path analysis model for membership in other youth programs only. The path model variables of membership in another youth program that are believed to impact on life skills development and later involvement in the 4-H program as a volunteer adult leader. The path models addressed include:

1. The impact of other youth program experiences on life skills (coping, competency, contributory) development.
2. The impact of life skills development on future participation as a volunteer 4-H adult leader.
3. The impact of life skills development on future adult community participation.
4. The impact of background characteristics on future participation as a volunteer 4-H adult leader.

Figure 6.

Path Analysis Model for Membership in Another Youth Program Only





5. The impact of background characteristics on future adult community participation.

## CHAPTER IV

### RESULTS

The purpose of this study was to identify the impact of youth program experiences, background characteristics, and adult community participation on youth life skills development and in previous or currently serving volunteer 4-H adult leaders. This chapter presents the findings of a national telephone survey related to the development of youth life skills and future participation as a 4-H volunteer adult leader.

#### **YOUTH PROGRAMS AND 4-H LEADER PARTICIPANTS**

The telephone survey contacted one thousand seven hundred sixty one (1761) respondents. Of these respondents, seven hundred nine (709) identified themselves as 4-H program alumni and one thousand fifty two (1052) identified themselves as non 4-H program participants.

As shown in Table 2, 345 respondents were members of the 4-H program only, 364 respondents were members of both 4-H and another youth program(s), 745 respondents were members of another youth program(s) only, and 307 respondents had no youth program experience. The youth score variable was calculated using 1454 respondents (1761 4-H and or other youth program alumni minus the 307 no youth program participants).

Table 2

## Youth Program Membership

Membership	Participants
4-H membership only	345
4-H and other youth program membership	364
Other youth program(s) membership only	745
No youth program membership	307
Total	1761

Table 3 lists the number of respondents who identified themselves as previous or currently serving as a 4-H volunteer adult leader. As reported in the previous chapter, the type of volunteer leader reported was used to determine the study variable 4-H Leader Score.

### **IMPACT OF YOUTH PROGRAMS ON 4-H AND NON 4-H ALUMNI**

This section reports the results of the impact of youth development programs on 4-H and non 4-H alumni as represented in the path models Figures 2 and 3. The influence of units of participation, program experiences, sources of project information, personal characteristics, and adult community participation on youth life skills

Table 3

## 4-H Leaders

Type of Leader	Number
Organization Leader	20
Project Leader	37
Activity Leader	36
Junior or Teen Leader	25
Other Leaders	15
Total	133

development and participation as a 4-H volunteer adult leader will be reported.

Figure 2, 4-H program alumni path model is divided into four outcomes: (1) the impact of youth program membership (4-H Score) , 4-H units of participation, 4-H program experiences, and sources of 4-H project information on the development of life skills, (2) the impact of life skills developed on adult community participation and involvement as a volunteer 4-H leader, (3) the impact of personal characteristics on adult community participation, and (4) the impact of youth program membership (4-H Score), life skills developed, and adult community participation on involvement as a volunteer 4-H leader. Figure 3, another

youth program alumni path model is divided into four slightly different program outcomes: (1) youth program experiences and sources of youth project information on the development of life skills, (2) the impact of life skills developed on adult community participation and involvement as a volunteer 4-H leader, (3) the impact of personal characteristics on adult community participation, and (4) the impact of life skills developed and adult community participation on involvement as a volunteer 4-H leader.

Each of the identified outcomes of the path models is assumed to depend both on all previous outcomes in the model and on exogenous variables. The variables of each path model were first analyzed by calculating their product-moment correlation in a correlation matrix. The variables with moderate or greater correlations were selected to be analyzed using standardized regression coefficients to enable the determination of the contribution of variables within each group. These coefficients should identify the youth program variables that make the largest contribution to the development of youth life skills and involvement as a 4-H volunteer adult leader.

#### **4-H Alumni Program Associations**

Table 4 reports the results of correlations of units of

Table 4

4-H Alumni Correlation Matrix of 4-H Units of Participation Hypothesized to Impact on Life Skills Development and 4-H Leader Participation

<u>4-H Units of Participation</u>	
1. Member 4-H School Club	1
2. Member 4-H Community Club	-.78 2
3. Member 4-H Project Club	ns ns 3
4. Member 4-H School Enrichment Program	.19 -.15 ns 4
5. Participated in 4-H Camp	ns ns .20 ns 5
6. 4-H Individual Self Study	ns ns .28 ns .25 6
7. Entry Age	ns -.09 ns ns -.12 ns 7
8. Years of Participation	-.17 .23 .14 ns .26 .12 -.32 8
9. Competency Life Skills	-.12 .18 .12 ns .18 .11 -.07 .38 9
10. Contributory Life Skills	ns ns .12 ns .18 .11 ns .23 .49 10
11. Coping Life Skills	ns .07 .10 ns ns ns .18 .24 .38 11
12. 4-H Leader Score	ns ns ns ns ns ns ns ns ns 12

ns = nonsignificant at alpha = .05

4-H participation, entry age, years of participation, 4-H life skills, and 4-H leader score of 4-H program alumni. The following is an interpretation of the associations found. In this study weak associations have a correlation of less than .20, moderate associations are .20 to .50, and strong associations are values over .50. Strong associations and moderate associations will be reported and only weak associations between .15 and .19 will be elaborated on.

#### **Units of 4-H Participation Versus 4-H Life Skills Development**

The data analysis indicated that there was a  $-.78$  correlation between 4-H school clubs and 4-H community clubs, meaning that a 4-H member who was a member of a community 4-H club was not likely to have been a member of a school 4-H club. There was a weak positive association (.19) between 4-H school club membership and participation in a 4-H school enrichment program. A negative association ( $-.17$ ) exists between 4-H school club membership and years of participation meaning that 4-H members of a school club had a shorter length of membership. 4-H members of a community 4-H club had a longer period of 4-H club membership. Members of 4-H project clubs were more likely to attend 4-H camps. In addition members of 4-H project clubs were

most likely to participate in individual self study, implying that most 4-H project work is completed on an individual or within the family level.

Those 4-H members who attended 4-H camp were more likely to have also participated in individual self study, indicating that 4-H camps tend to focus on 4-H projects. Attending a 4-H camp was also associated with length of 4-H program membership, indicating that 4-H members who attended camp had been in the 4-H program for a longer period of time. Attending 4-H camp also developed competency life skills indicating that knowledge and skills were being taught to these members. Finally those 4-Hers attending 4-H camp developed contributory life skills, indicating that social development was one of the prime reason for going to 4-H camp.

Years of participation in 4-H was negatively associated (-.32) with entry age, meaning that those members who participated longer joined 4-H at a younger age. Years of participation was moderately associated (.38) with competency life skills development indicating that competency life skills increased as years of participation increased.

Competency life skills development was significantly associated with membership in a community 4-H club meaning that community 4-H clubs and 4-H camps were perceived to teach more knowledge and skills than other types of life



skills. Participation in 4-H camp developed contributory life skills showing the social skills developed at 4-H camps.

Participation in 4-H camps also developed contributory life skills, meaning 4-H camps taught 4-Hers to get along with others more than other units of 4-H participation.

Coping life skills development was not significantly related to any unit of 4-H participation variables.

Life skills development was moderately associated with the development of the other life skills. Competency life skills was associated (.49) with contributory life skills development indicating the need to work with others is important in gaining knowledge and skills. Competency life skills development was slightly associated (.24) with coping life skills development implying that social skills development was not tied directly to 4-H members gaining knowledge and skills.

Contributory life skills was associated (.38) with coping life skills development indicating the close relationship interpersonal and social skills development have. Finally there were no significant relationships associated with being a 4-H leader.

#### Summary of Associations Related to the 4-H Alumni Path Model

Units of 4-H participation developed both competency and

contributory life skills. Coping life skills (interpersonal) development was not significantly associated with any unit of 4-H participation.

Members of community 4-H clubs and participants of 4-H camps were perceived to teach more knowledge and skills than other types of youth life skills. Four-H camps taught 4-Hers to get along with other more than other units of 4-H participation.

Length of participation in the 4-H program was associated with the development of competency, contributory, and coping life skills. This would indicate that the gain in knowledge and skills related to a 4-H project is a primary aim of the 4-H program, the longer the youth stay in the 4-H program they also tend to develop interpersonal and social development skills. Finally in a related association, those 4-H members who had a longer tenure of membership in the 4-H program tended to have joined 4-H at an earlier age.

#### **4-H Program Experiences Versus 4-H Life Skills Development**

Results of 4-H program experiences are reported in Table 5 along with their interaction with entry age, years of participation, life skills developed, and 4-H leaders score. The following is an interpretation of the associations found:

Table 5

4-H Alumni Correlation Matrix of 4-H Program Experiences Hypothesized to Impact on Life Skills Development and 4-H Leader Participation

<u>4-H Program Experiences</u>		1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Completed a 4-H Project													
2.	Club Officer or Committee Member	.29												
3.	Participated in Community Service Project	.16	.35											
4.	Participated in Stock Show and Fairs	.35	.32	.26										
5.	Participated in 4-H Contests	.29	.31	.32	.30									
6.	Participated in Exchange Programs	ns	.14	.12	.09	.15								
7.	Participated in National 4-H Trips	.11	.16	.13	.12	.16	.28							
8.	Entry Age	-.12	-.12	-.08	-.10	ns	ns	ns						
9.	Years of Participation	.29	.50	.34	.30	.31	.18	.22	-.32					
10.	Competency Life Skills	.28	.46	.41	.30	.30	.12	.14	-.07	.38				
11.	Contributory Life Skills	.15	.23	.31	.15	.22	.12	.14	ns	.23	.49			
12.	Coping Life Skills	ns	.09	.16	.08	.10	.09	ns	ns	.18	.24	.38		
13.	4-H Leader Score	-.26	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

ns = nonsignificant at alpha = .05

The data analysis indicated that there was a moderate associations between completing a 4-H project and being a club officer or committee member (.29) indicating that those 4-H members who completed 4-H projects were tended to be 4-H club officers or committee members. Completing a 4-H project was the most highly associated variable in participating in stock shows and fairs. This would indicate that these events are the culminating activities in most 4-H project work. These associations were also supported by the high association between completing a 4-H project and participating in 4-H contests. Indicating that the 4-H program has numerous events/activities and leadership opportunities that a 4-H member must participate in to complete a 4-H project.

Completing a 4-H project was moderately associated with the number of years participating in the 4-H program (.29) indicating once again that to complete a 4-H project a 4-H member must have several years of 4-H years of participation to master the complexity in completing a 4-H project.

Completing a 4-H project was also associated with life skills development. Completing a 4-H project was related to competency life skills development (.28) indicating the knowledge gained by the time a 4-H project was completed. Completing a project was weakly associated with contributory life skills development indicating that

completing a 4-H project is only responsible for a minor amount of social life skills developed. Perhaps the 4-H project becomes the means of 4-H member development not the end product of the 4-H program.

Completing a 4-H project had a negative association (-.26) with being a 4-H leader. The negative association of completing a 4-H project with being a 4-H volunteer leader would seem to indicate that previous or current 4-H leaders were not likely to have completed a 4-H project while in 4-H. This could imply that 4-H leaders come from backgrounds other than 4-H and/or they did not come from a strong activity based 4-H program background.

Those 4-H members who were club officers or committee members were more likely to have participated in a community service project (.35) indicating that 4-H club officers participated in community service projects.

Being a 4-H club officer or committee member was highly associated with years of participation (.50) indicating that 4-H members that had some leadership responsibilities stayed in 4-H longer.

Being a 4-H club officer or committee member was associated with life skills development. There was a high association with 4-H club leadership and the development of competency life skills (.46) indicating the knowledge and skills developed by being an officer or committee

member. Four-H club leadership was also associated with contributory life skills development (.23) indicating that club leadership helped to develop social life skills.

Being a club officer or committee member was also moderately associated with participation in stock shows and fairs. Four-H club leadership was also moderately associated with participating in 4-H contests indicating that 4-H club officers or committee members tended to be more active in the 4-H program.

Those 4-H members who participated in community service projects were more likely to have participated in 4-H contests indicating some relationship between these 4-H program experiences. Those 4-H members who participated in community service projects were likely to have participated in stock shows and fairs.

Those 4-H members who participated in community service projects developed competency, contributory, and coping life skills. Those who participated in community service projects tended to develop more interpersonal skills, indicating that community service projects help in getting 4-H members to plan and work together. Participating in a community service project is also highly associated with the development of competency life skills. Contributory life skills development is moderately associated with participation in community service projects.

Those 4-H members who participated in stock shows and

fairs were more likely to to have participated in other 4-H contests. Those 4-H members who participated in stock shows and fairs tended to have longer lengths of 4-H membership.

Those 4-H members who participated in stock shows and fairs developed life skills. Participation in stock shows and fairs was moderately associated with competency life skills, indicating that these activities were important in the gain of project knowledge and skills. Those 4-H members who participated in 4-H contests were more likely to have participated in a national 4-H trip. Participation in 4-H contests was also moderately associated with length of 4-H membership, indicating that those 4-H members who stayed in the 4-H program tended to be more actively involved in the events/activities of the Participation in 4-H contests was moderately associated with life skills development. Participating in 4-H contests developed competency life skills, indicating that 4-H contests helped 4-Hers gain in knowledge and skills. In addition, 4-H contests also developed contributory life skills, indicating that by participating in 4-H contests 4-Hers were developing social skills.

Those 4-H members who participated in exchange programs were more likely to have participated in national 4-H trips, indicating that older youth participate in exchange

programs. While participation in national 4-H trips was moderately associated with years of participation in the 4-H program, implying that national trips are rewards for achievement during a 4-H career.

No significant difference was indicated between entry age into 4-H and 4-H program experiences. This would seem to indicate that 4-H members enter program experiences at various ages and have a variety of 4-H program experiences.

Four-H program experiences developed 4-H life skills. Experiences in the 4-H program were especially valuable in the development of competency life skills. This is not surprising since 4-H experiences are based around the knowledge and skills gained in project work. Being a club officer or committee member and participating in a community service project were highly associated with the development of knowledge and skills in 4-H members. Contributory life skills development was moderately associated with being a club officer or committee member and participated in community service projects and 4-H contests. Coping life skills development was weakly associated with participation in community service projects.



### Summary of Associations Related to the 4-H Alumni Path Model

Those 4-H members who had longer tenures of membership tended to be club officers or committee members. While the longer the tenure of membership, the greater the participation in 4-H events/activities.

A primary variable in explaining youth life skills development is participating in community service projects. Being a 4-H club officer or committee member developed more competency life skills (knowledge and skills) in 4-H members. While participating in a community service project developed more contributory (social) and coping (interpersonal) life skills.

#### **Sources of 4-H Project Information Versus 4-H Life Skills Development**

The 4-H Alumni Study team identified eight sources of 4-H project information. Table 6 reports sources of 4-H project information interaction with each other and with entry age, years of participation, life skills developed, and 4-H leader score.

Those 4-H members who used 4-H project member guides were more likely to use county Extension agents as an additional source of 4-H project information. These 4-H members also indicated moderate associations in attending 4-H club meetings, indicating that 4-H club meetings are a

Table 6

4-H Alumni Correlation Matrix of Sources of 4-H Project Information Hypothesized to Impact on Life Skills Development and 4-H Leader Participation

<u>Sources of 4-H Project Information</u>		<u>Sources of 4-H Project Information</u>																
1.	4-H Project Member Guides	1																
2.	Adult 4-H Leaders	.15	2															
3.	Teen or Junior Leaders	.15	.25	3														
4.	Family Members	.10	.27	.21	4													
5.	County Extension Agents	.29	.23	.30	.23	5												
6.	Book or Magazines	.23	.12	.26	.13	.33	6											
7.	4-H Club Meetings	.24	.34	.23	.17	.22	.22	7										
8.	Workshops, Clinics, Tours	ns	.25	.45	.17	.24	.34	.28	8									
9.	Entry Age	ns	ns	ns	ns	ns	ns	ns	ns	9								
10.	Years of Participation	.10	ns	ns	.12	.16	ns	ns	.14	-.32	10							
11.	Competency Life Skills	.12	.14	.18	.17	.25	.10	.17	.17	-.07	.38	11						
12.	Contributory Life Skills	.32	.25	.31	.20	.40	.31	.34	.28	ns	.23	.49	12					
13.	Coping Life Skills	.18	.19	.21	.19	.28	.20	.19	.16	ns	.18	.24	.38	13				
14.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	14				

ns = nonsignificant at alpha = .05

source of 4-H project information for 4-H members. Those 4-H members who used 4-H project member guides also developed contributory life skills. This would imply that using 4-H project guides helped develop social skills because the project work was being conducted in groups. Those 4-H members who used adult 4-H leaders as a source of 4-H project information were more likely to receive their sources of information at 4-H club meetings. This would indicate that the organization leader is a valuable source of project information.

These 4-H members indicated moderate associations with their interaction with county Extension agents, indicating the information role of the county Extension agent.

Family members were moderately associated with sources of 4-H project information indicating how important families are to the 4-H project. Teen or junior leaders were also moderately associated with 4-H project information, indicating the value of using older 4-H members in the teaching phase of project work.

Finally adult 4-H leaders were moderately associated with the development of contributory life skills in 4-H members. This indicates that adult 4-H leaders have important roles in the development of social skills in 4-H members.

Those 4-H members who used teen or junior leaders as a source of 4-H project information were more likely to have

attended a workshop, clinic or tour. These members also had moderate associations in their interaction with county Extension agents, indicating the important role model function that the agent is performing.

Not surprisingly those youth who were teen or junior leaders developed contributory life skills, meaning that being a teen or junior leader developed social skills. Also being a teen or junior leader developed interpersonal skills in these 4-H members.

Those 4-H members who used their interaction with family members as a source of 4-H project information had a moderate association with developing contributory life skills, reinforcing the value of family interaction and social development. Using family members as a source of project information only weakly developed coping (interpersonal) life skills.

Those 4-H members who used their interaction with a county Extension agent as a source of 4-H project information were more likely to use 4-H project member guides and use books and magazines as additional sources of 4-H project information. These 4-H members also were more likely to develop more competency, contributory, and coping life skills. Interaction with their county Extension agent as highly associated with the development of contributory life skills meaning that 4-H members looked at their

county Extension agent as a major contributor to their social development.

Those 4-H member who used books or magazines as a source of 4-H project information were more likely to use workshops, clinics, and/or tours as additional source of 4-H project information. Those 4-H members who used books or magazines for project information were moderately associated with developing contributory life skills.

Those 4-H members who attended 4-H club meetings as a source of 4-H project information were more likely to use adult 4-H leaders as additional project information.

These 4-H members also had moderate associations in their in attending workshops, clinics, or tours. In addition 4-H members who attended 4-H club meetings for sources of 4-H project information had moderate associations in contributory life skills development.

Those 4-H members who attended workshops, clinics, or tours for sources of 4-H project information were more likely to 4-H club meetings additional sources of 4-H project information. These 4-H members had moderate associations in developing contributory life skills.

There was no significant association in entry age and years of participation with sources of 4-H project information. All variables relating to sources 4-H project information indicated no significance difference with being a 4-H leader.

### Summary of Associations Related to the 4-H Alumni Path Model

Sources of 4-H project information were not moderately associated with the development of competency life skill, with the exception of interaction with their county Extension agent. This would indicate that 4-Hers learn more project information knowledge and skills from their county Extension agent than from other sources of 4-H project information.

The development of contributory life skills is moderately associated with all eight sources of 4-H project information, indicating that sources of 4-H information help 4-H members develop more sharing and social contribution skills, than other life skills.

Coping life skills was likely to be developed by interaction with their county Extension agent, meaning that the county Extension agent is important in helping youth develop interpersonal skills. Interaction with their county Extension agent was rated the source of 4-H information for all three life skills variables, indicating the importance of the county Extension agent in the development of 4-H members.

### **Personal Characteristics Versus Adult Community Participation**

This study also looked at the correlations of adult

community participation versus respondent personal characteristics. Table 7 reviews the respondents who identified themselves as belonging to: (1) a agricultural related group, (2) the chamber of commerce, and a civic group. Table 8 reviews the respondents who identified themselves as belonging to: (1) a church, (2) a community event, and (3) a composite community score. Table 9 reviews the respondents who identified themselves as belonging to: (1) a industrial group, (2) a political group, and (3) a composite extension score.

In Table 7 belonging to a agricultural related group is negatively associated (-.17) with residence meaning those respondents who live on a farm or ranch are more likely to belong to an agricultural related group. Those respondents who have an agricultural related job are the most likely to be members of an agricultural related group.

Those respondents who identified themselves as belonging to a chamber of commerce did not have any significant associations with personal characteristics, indicating members of this group were equally represented with a variety of members. Those members who identified themselves as belonging to a civic group were moderately associated with high school grades, indicating members of civic groups tended to have higher grades in high school. Correlations of personal characteristics in Tables 7, 8,

Table 7

4-H Alumni Correlation Matrix of Personal Characteristics Hypothesized to Impact on Adult Community Participation (Agriculture Group, Chamber of Commerce, and Civic Group)

<u>Personal Characteristics</u>		1	2	3	4	5	6	7	8	9	10	11
1.	Residence											
2.	Level of Education	.19										
3.	High School Grades	ns	.33									
4.	Employment Status	ns	-.20	ns								
5.	Agriculture Related Job	-.22	ns	ns	-.17							
6.	Number of Children In Household	-.07	ns	ns	ns	ns						
7.	Number of Children	-.07	-.16	ns	.15	ns	.46					
<u>Adult Community Participation</u>												
8.	Agricultural Related Group	-.17	.06	.05	-.07	.26	.09	.13				
9.	Chamber of Commerce	ns	.10	.07	-.08	.06	ns	.05	.27			
10.	Member of a Civic Group	.06	.20	.14	ns	ns	ns	.08	.62	.73		
11.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

ns = nonsignificant at alpha = .05



Table 7 Continued

<u>Personal Characteristics</u>		1	2	3	4	5	6	7	8	9	10	11
1.	Number of Children Over 9 Years of Age	.29	ns	.12	ns	ns	ns	.10	ns	ns	ns	ns
2.	Number of Children in 4-H	.21	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
3.	Number of Children in Other Youth Programs	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
4.	Total Family Income	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
5.	Racial/Ethnic Background	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
6.	Sex	.07	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
7.	Present Age	.47	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
<u>Adult Community Participation</u>												
8.	Agricultural Related Group	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
9.	Chamber of Commerce	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
10.	Civic Group	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
11.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns

ns = nonsignificant at alpha = .05

and 9 indicate having an agricultural related job was moderately associated with residing on a farm or ranch. Level of education is positively associated (.33) with high school grades, indicating not surprisingly that those with higher levels of education made higher grades in high school. The number of people in the household was positively associated (.46) with the number of children a respondent reported they had.

Residence was positively associated with the number of children over 9 years of age (.29) indicating that those respondents who had more more children lived on a farm or ranch. Respondents also indicated a association between residence and the number of children in 4-H (.21) meaning 4-H alumni with children in 4-H were more likely to reside in a metropolitan area. In addition residence was strongly associated (.47) with present age, indicating the respondents were more likely to reside in a metropolitan area and be older. No significant associations were indicated for being a 4-H Leader with personal characteristics and adult community participation.

In Table 8, belonging to a church group is weakly associated (.18) with high school grades indicating that those respondents that belong to a church group tend to have had higher grades in high school. Belonging to a group involved in an community event was moderately

Table 8

4-H Alumni Correlation Matrix of Personal Characteristics Hypothesized to Impact on Adult Community Participation (Church Group, Community Event, and Community Score)

<u>Personal Characteristics</u>		1	2	3	4	5	6	7	8	9	10	11
1.	Residence											
2.	Level of Education	.19										
3.	High School Grades	ns	.33									
4.	Employment Status	ns	-.20	ns								
5.	Agriculture Related Job	-.22	ns	ns	-.17							
6.	Number of People In Household	-.07	ns	ns	ns	ns						
7.	Number of Children	-.07	-.16	ns	.15	ns	.46					
<u>Adult Community Participation</u>												
8.	Church Group	ns	.12	.18	.06	ns	.09	.13				
9.	Community Event	.05	.22	.11	ns	ns	ns	.05	.27			
10.	Community Score	ns	.26	.20	ns	.10	ns	.08	.62	.73		
11.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

ns = nonsignificant at alpha = .05

Table 8 Continued

<u>Personal Characteristics</u>										
1.	Number of Children Over 9 Years of Age	1								
2.	Number of Children in 4-H	.29	2							
3.	Number of Children in Other Youth Programs	.21	ns	3						
4.	Total Family Income	ns	-.10	.12	4					
5.	Racial/Ethnic Background	ns	ns	ns	ns	5				
6.	Sex	.07	ns	ns	-.09	ns	6			
7.	Present Age	.47	ns	-.09	-.11	-.07	.10	7		
<u>Adult Community Participation</u>										
8.	Church Group	.07	.09	.13	.07	-.08	.10	.14	8	
9.	Community Event	ns	ns	.06	.12	-.06	ns	.07	.27	9
10.	Community Score	ns	.09	.09	.17	-.07	ns	.13	.63	.73
11.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns
										11

ns = nonsignificant at alpha = .05

associated (.22) with the respondents level of education indicating that those respondents that are active in an community event tend to have higher levels of education. Comparing the composite community score with personal characteristics indicated associations with level of education (.26), meaning that respondents that were active in their community tended to have a higher level of education. The composite community score was moderately associated with high school education, meaning that those involved in the community had higher grades in high school, Being a 4-H leader was not associated with belonging to a church, participating in a community event, or the composite community score.

In Table 9, belonging to an industrial group was not associated with any of the personal characteristics variables. Being a member of a political group was weakly associated (.15) with level of association indicating that respondents who belonged to political groups tended to have a higher level of education.

Those respondents who indicated their use of the Cooperative Extension Service were grouped into a composite Extension Score. Extension Score was moderately associated with residence (-.26), which indicated that those respondents who used the services of the Cooperative Extension Service tended to live on a farm or ranch. Extension Score was also related to having an agriculture

Table 9

4-H Alumni Correlation Matrix of Personal Characteristics Hypothesized to Impact on Adult Community Participation (Industrial Group, Political Group, and Extension Score) and 4-H Leader Participation

<u>Personal Characteristics</u>		1	2	3	4	5	6	7	8	9	10	11
1.	Residence											
2.	Level of Education	.19										
3.	High School Grades	ns	.33									
4.	Employment Status	ns	-.20	ns								
5.	Agriculture Related Job	-.22	ns	ns	-.17							
6.	Number of Children In Household	-.07	ns	ns	ns	ns						
7.	Number of Children	-.07	-.16	ns	.15	ns	.46					
<u>Adult Community Participation</u>												
8.	Industrial Group	ns	.06	ns	-.10	ns	ns	ns				
9.	Political Group	ns	.15	.09	ns	ns	ns	ns	.09			
10.	Extension Score	-.26	ns	ns	ns	.25	.06	.12	.07	.15		
11.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	

ns = nonsignificant at alpha = .05

Table 9 Continued

<u>Personal Characteristics</u>										
1.	Number of Children Over 9 Years of Age	1								
2.	Number of Children in 4-H	.29	2							
3.	Number of Children in Other Youth Programs	.21	ns	3						
4.	Total Family Income	ns	-.10	.12	4					
5.	Racial/Ethnic Background	ns	ns	ns	ns	5				
6.	Sex	.07	ns	ns	-.09	ns	6			
7.	Present Age	.47	ns	-.09	-.11	-.07	.10	7		
<u>Adult Community Participation</u>										
8.	Industrial Group	ns	ns	ns	.10	ns	-.09	ns	8	
9.	Political Group	ns	ns	ns	.06	ns	ns	.05	.09	9
10.	Extension Score	.09	.35	ns	ns	-.06	.05	.12	.07	.15
11.	4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns

ns = nonsignificant at alpha = .05

related job (.25), which indicates that those respondents who used the services of the Cooperative Extension Service tended to also work in the field of agriculture. Finally, the Extension Score was moderately associated and the number of children in 4-H (.35), which indicated that those respondents who used the services of the Cooperative Extension Service tended to have children in the 4-H program. Being a 4-H leader was not associated with belonging to an industrial group, an political group, and and a composite extension score.

#### Summary of Associations Related to the 4-H Alumni Path Model

Tables 7 through 9 report the associations between personal characteristics and adult community participation. Belonging to an agricultural related group was associated with having an agriculture related job, while belonging to a civic group was only associated with level of education meaning that those who belonged to civic group were more likely to have higher levels of education. Belonging to a chamber of commerce was not significantly associated with any of the personal characteristics.

Belonging to a church group was weakly associated with high school grades, meaning that those that belonged to a church group had higher grades in high school.



Participation in a community event was moderately associated with level of education, meaning that those who participated in community in events were more likely to have higher level of education. The composite community score was moderately associated with level of education, meaning that those respondents who were active in their community had higher levels of education. Those 4-H alumni respondents who were active in their community also tended to have higher high school grades. Belonging to an industrial group was not significantly associated with personal characteristics of 4-H alumni, while belonging to an political group was weakly associated with level of education, meaning that those who joined political groups were more likely to have higher levels of education. The composite Extension score was moderately associated with residence, having an agricultural related job, and the number of children in 4-H, meaning that those 4-H alumni who used the services of the Cooperative Extension Service were more likely to live on a farm or ranch, have a job in the agriculture sector, and their children were members of the 4-H program.

#### **Adult Community Participation Versus 4-H Life Skills and 4-H Leader Score**

Table 10 represents the correlations of adult community participation versus 4-H life skills developed and being a

Table 10

4-H Correlation Matrix of Independent Variables (Adult Community Participation and 4-H Score)  
Hypothesized to Impact 4-H Alumni on the Life Skills Development and 4-H Leader Participation  
Model

<u>Adult Community Participation</u>														
1. Agricultural Related Group	1													
2. Chamber of Commerce	.07	2												
3. Civic Group	.13	.22	3											
4. Church Group	.05	.07	.21	4										
5. Community Event	.10	.19	.44	.27	5									
6. Community Score	.30	.37	.70	.63	.73	6								
7. Industrial Group	ns	.18	.10	.08	.14	.31	7							
8. Political Group	.05	.12	.21	.12	.21	.44	.09	8						
9. Extension Score	.29	.12	.16	.21	.18	.31	.07	.15	9					
10. Competency Life Skills	ns	.12	.16	.11	.12	.21	ns	.08	.19	10				
11. Contributory Life Skills	ns	ns	.09	.10	ns	.15	.08	.10	.23	.49	11			
12. Coping Life Skills	ns	ns	ns	ns	ns	ns	ns	ns	.22	.24	.38	12		
13. 4-H Score	.09	.09	.06	.12	.11	.15	.05	ns	.17	ns	ns	ns	13	
14. 4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	14

ns = nonsignificant at alpha = .05

4-H leader. Finally the variable 4-H score is correlated with life skills developed and being a 4-H leader.

Table 10 shows the correlations of the nine adult community participation variables with each other. Reporting on those variables that indicate moderate associations, .20 and above showed the following.

Belonging to an agricultural related group was moderately associated with community score (.30), meaning that those 4-H alumni who are members of an agricultural related group tended to be active in other community events/activities. In addition, those 4-H alumni who belonged to an agricultural related group (.29), tended to use the services of the Cooperative Extension Service.

Belonging to the chamber of commerce was moderately associated with belonging to a civic group (.22), meaning 4-H alumni who were members of the chamber of commerce were also members of other civic groups. Belong to chamber of commerce was also moderately associated with community score (.37), indicating that they were also active in a variety of community organizations and events/activities.

Belonging to a civic group was moderately associated with participation in a community event (.44). Membership in a civic group was strongly associated (.70) associated with the composite community score, indicating that those who were involved in a civic group were also involved in other

community organizations and events/activities.

Membership in an church group was strongly associated (.63) with the composite community score. Participating in an community event was strongly associated (.73) with the composite community score.

The composite community score was moderately or strongly associated with the other seven adult community participation variables. Moderate associations were indicated with belonging to an agriculture related group (.30), membership in the chamber of commerce (.37), membership in an industrial group (.31), membership in an political group (.44), and extension score (.31). Strong associations were indicated in membership belonging to a civic group (.70), membership in a church group (.63), and participating in an community event (.73).

Belonging to an industrial group was moderately associated with only the composite community variable score (.31).

While belonging to a political group was moderately associated with membership in a civic group (.21), participating in an community event (.21), and the composite community score (.44). The composite extension participation variable was moderately associated with belonging to an agriculture related group (.29), membership in a church group (.21), and the composite community score (.31).

Reviewing the correlations of adult community participation with 4-H youth life skills indicates that competency life skills is moderately associated with the composite community score (.21), indicating that 4-H alumni who are developed 4-H competency (knowledge and skills) life skills tended to be active in their community. Competency life skills development is also weakly associated with and the extension participation score (.19), indicating that 4-H alumni who developed knowledge and skills use the services of the Cooperative Extension Service.

Contributory life skills development was moderately associated with the extension participation score (.23), meaning those 4-H alumni who developed social life skills tended to use the services of the Cooperative Extension Service.

Coping life skills development was moderately associated only with the extension participation score (.22), meaning that those 4-H alumni who developed interpersonal life skills tended to use the services of the Cooperative Extension Service.

Presently or previous tenure as a 4-H leader was not significantly related to adult community participation. The 4-H score variable was weakly associated with the composite community score (.15), meaning that those 4-H

alumni who were members of 4-H and other youth organizations tended to be active in their community as adults. Likewise, those 4-H alumni who were members of youth programs tended to use other services of the Cooperative Extension Service (extension participation score (.17)).

Summary of Associations Related to the 4-H Alumni  
Path Model

Those 4-H alumni who developed competency life skills (knowledge and skills) tended to be active in their communities when they became adults. In addition, those 4-H alumni who developed knowledge and skills tended to use the services of the Cooperative Extension Service as adults.

The development of contributory life skills was moderately associated with Extension Score (.23), meaning that those 4-H alumni who developed social skills while in 4-H tended to use the services of the Cooperative Extension Service as an adult. Four-H alumni who developed contributory (social) life skills tended to be active as adults in their communities.

Coping life skills development was only moderately associated with Extension score (.22), meaning that those 4-H alumni who developed interpersonal skills while in 4-H tended to use the services of the Cooperative Extension

Service. Extension Score and Community Score seem to be variables that would indicate life skills development in 4-H alumni.

It should be noted that the 4-H Score variable was not significantly different from any other variables that it was compared too. This would seem to indicate that the 4-H volunteer adult leaders do not come from a 4-H background or did not develop the amounts of life skills that other 4-H members do. The 4-H Score significance for Community Score and Extension Score would indicate that those 4-H alumni who were active members of youth organizations tended to also be actively involved in their community as adults.

### **Non 4-H Youth Program Associations**

This section reports the results of correlations of variables that measure the impact of non 4-H youth program participation. Figure 3 represents the path model for non 4-H alumni. This model will look at four youth program outcomes: (1) youth program experiences and sources of youth project information on the development of youth life skills, (2) the impact of youth life skills developed on adult community participation and involvement as a volunteer 4-H leader, (3) the impact of personal characteristics on adult community participation, and (4) the impact of youth life skills developed and adult

community participation on involvement as a volunteer 4-H leader. Each of the identified outcomes of the path models is assumed to depend both on all previous outcomes in the model and on exogenous variables.

### **Non 4-H Youth Program Experiences Versus Youth Life Skills Development**

Table 11 reports non 4-H alumni youth program experiences with youth life skills development and service as a 4-H leader. Those non 4-H alumni youth program participants who were club officers or committee members were more likely to participate in community service projects, meaning that those non 4-H youth program members who were club officers or committee members tended to also participate in community service projects. These non 4-H youth program members who were club officers or committee members also tended to maintain their membership longer, indicating that being involved in youth leadership position encouraged youth to stay in the program longer. Non 4-H members who were club officers or committee members was strongly associated with competency life skills development (.41), meaning that club officers or committee members have developed knowledge and skills. Being a club officer or committee member was moderately associated with the development of contributory life skills, indicating that club officers and committee



Table 11

Non4-H Alumni Correlation Matrix of 4-H Program Experiences and Sources of Project Information  
Hypothesized to Impact on Life Skills Development and 4-H Leader Participation

<u>Non4-H Youth Program Experiences</u>										
1. Club Officer or Committee Member	1									
2. Participated in Community Service Project	.28	2								
3. Participated in Exchange Programs	.07	.14	3							
4. Participated in National 4-H Trips	.16	.17	.18	4						
5. Club Meetings	.10	ns	ns	ns	5					
6. Entry Age	ns	-.20	ns	-.10	ns	6				
7. Years of Participation	.31	.31	.08	.19	.17	-.48	7			
8. Competency Life Skills	.41	.29	.08	.18	.29	-.08	.30	8		
9. Contributory Life Skills	.19	.20	ns	.13	.42	ns	.21	.57	9	
10. Coping Life Skills	.09	.10	ns	.11	.30	ns	.16	.32	.47	10
11. 4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	11

ns = nonsignificant at alpha = .05

members also tended to have developed social development skills.

Those non 4-H alumni youth program participants who participated in community service projects were more likely to joined their youth program at an earlier age. In addition those non 4-H youth program alumni who participated in community service projects tended to maintained their membership longer.

Participation in community service projects was moderately associated with the development of competency life skills, meaning that non 4-H alumni who participated in community service projects tended to have developed knowledge and skills in their youth program experiences. Contributory life skills development was also moderately associated with participation in community service projects, indicating those non 4-H alumni who participated in community service projects tended to have developed social life skills while in the youth development program.

Those non 4-H youth program participants who participated in exchange programs were more likely to also participate in national trips. Participation in exchange programs was not significantly related to any other variable.

Those non 4-H alumni who participated in national trips had more years of program participation, meaning those non 4-H alumni who participated in national trips tended to be older. Non 4-H alumni who participated also tended to

develop competency life skills, indicating that these youth had developed knowledge and skills.

Attending club meetings was associated with life skills development. Those non 4-H alumni who attended club meetings tended to develop knowledge and skills (competency life skills).

Those non 4-H alumni who attended club meetings were more likely to develop contributory life skills, indicating that club meetings helped non 4-H youth develop social skills. Similarly, club meetings developed coping life skills, meaning that attending club meetings helped in the development of interpersonal skills.

Attending club meetings was also moderately associated with the years of participation in a youth program, meaning that non 4-H alumni who attended meetings tended to participate longer in the program. Entry age into non 4-H youth programs was negatively correlated with participation in community service projects (-.20), meaning that younger members participated in community service projects. Entry age was also negatively associated with years of participation (-.48), meaning that those non 4-H alumni who participated the longest tended to have joined the youth program at a very young age.

Years of participation was moderately associated with the

development of competency, contributory, and coping life skills. Non 4-H program experiences developed more competency life skills (knowledge and skills) than other life skills. Non 4-H program experiences also developed social skills.

The development of competency life skills in non 4-H alumni was strongly associated (.57) with the development of non 4-H alumni contributory life skills and moderately associated (.32) with the development of coping life skills in non 4-H alumni. The development of non 4-H alumni contributory life skills was moderately associated (.47) with the development of coping life skills in non 4-H alumni. Service as a adult 4-H volunteer leader was not significantly related to any youth program experiences, and development of youth life skills.

#### Summary of Associations Related to the Non 4-H Alumni Path Model

The data from Table 11 indicates a strong association with being a club officer or committee member (.41) and competency life skills development, this means that those non 4-H alumni who were club officers or committee members, were more likely to be developed knowledge and skills. Participating in community service projects was moderately associated (.29) with the development of knowledge and skills (competency life skills) in non 4-H

alumni. Those non 4-H alumni who participated in national exchange programs also developed competency life skills. Finally those non 4-H alumni who stayed in non 4-H youth programs longer tended to develop competency life skills, meaning that the longer youth stayed in non 4-H youth programs the more knowledge and skills they gained.

Developing contributory life skills was highly associated with attending club meetings, indicating that club meetings develop social skills in non 4-H alumni. Those non 4-H alumni who developed contributory life skills were more likely to participate in community service projects, indicating the social development skills potential in community service projects in non 4-H alumni. Developing contributory life skills was moderately associated with years of participation in the non 4-H youth program, meaning that the longer a non 4-H member stayed in the program the more social skills were developed.

Developing non 4-H coping life skills was moderately associated with attending club meetings, indicating that attending youth program club meetings develops interpersonal life skills. In addition the development of coping life skills was weakly associated with years of participation, meaning that those non 4-H alumni who stayed in a non 4-H youth program longer developed interpersonal life skills.

Attending a non 4-H youth program club meeting was a key

variable in developing youth life skills. Another key variable in developing youth life skills in non 4-H alumni was participating in community service projects, while being a club officer or committee developed the most competency life skills. The development of youth life skills was not significantly related to future participation as a volunteer 4-H adult leader.

### **Adult Community Participation Versus Non 4-H Youth Life Skills Development**

Table 12 reports the correlations between adult community participation and youth life skills development. Finally the variable 4-H Leader was correlated with adult community participation.

#### Summary of Associations Related to the Non 4-H Alumni Path Model

The development of competency life skills in non 4-H alumni was moderately associated with the composite variable Community Score, meaning that those non 4-H alumni who developed knowledge and skills in a non 4-H youth program tended to be active in community organizations and events/activities. Competency life skills in non 4-H alumni was weakly associated with belonging to an civic group, meaning that non 4-H alumni slightly tended to belong to a civic group or organization.

Table 12  
Non4-H Alumni Correlation Matrix of Adult Community Participation Hypothesized to Impact on Life Skills Development and 4-H Leader Participation

<u>Adult Community Participation</u>																		
1. Agricultural Related Group	1																	
2. Chamber of Commerce	.07	2																
3. Civic Group	.13	.22	3															
4. Church Group	.05	.07	.21	4														
5. Community Event	.10	.19	.44	.27	5													
6. Community Score	.30	.37	.70	.63	.73	6												
7. Industrial Group	ns	.18	.10	.08	.14	.31	7											
8. Political Group	.05	.12	.21	.12	.21	.44	.09	8										
9. Extension Score	.29	.12	.16	.21	.18	.31	.07	.15	9									
10. Competency Life Skills	ns	.09	.15	.14	.15	.22	.10	.15	.10	10								
11. Contributory Life Skills	ns	ns	.13	ns	.11	.16	.09	.12	.11	.57	11							
12. Coping Life Skills	ns	ns	ns	ns	ns	ns	ns	ns	.11	.32	.47	12						
13. 4-H Leader Score	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns	13					

ns = nonsignificant at alpha = .05

Finally competency life skills development in non 4-H alumni was also weakly associated with belonging to an political group. This indicates that non 4-H alumni slightly tended to belong to political groups.

The development of contributory life skills in non 4-H alumni was weakly associated (.16) with the composite community score only, meaning that those non 4-H youth who developed social life skills tended to be active in community organizations and events/activities as adults.

The development of coping life skills and participation as a adult 4-H volunteer leader was not associated with any of the adult community participation variables. Likewise, the 4-H Leader Score variable was not associated with any of the adult community participation variables. The data analysis of non 4-H alumni life skills development would indicated that non 4-H alumni who as adults participate in the community, tended to have developed competency life skills.



### 4-H Alumni Path Analysis Model

Tables 13, 14, and 15 represent Figure 2, and the tests of significance and standardized coefficients for regression of 4-H alumni life skills development on 4-H youth program experiences, sources of 4-H project information, and 4-H units of participation. Based on the significant F value for each of the regression models presented in Table 13 and 14, it was concluded that the joint effects of all the independent variables on the dependent variables (competency, contributory, and coping life skills) are significantly different from zero. In other words, observed multiple correlations of 4-H program experiences, sources of 4-H project information, and units of 4-H participation are not due to sampling fluctuations. Factors affecting competency, contributory, and coping life skills in 4-H alumni are presented in Table 13 and 14. The primary variable affecting competency life skills development in 4-H alumni was being a 4-H club officer or committee member. The coefficient of .273 means that those respondents who were club officers or committee members developed more competency life skills. Other variables affecting competency life skill development was participation in community service projects (.201) and attending 4-H club meetings (.126). Sources of 4-H project information and units of 4-H participation did not have a

Table 13

Tests of Significance and Standardized Regression Coefficients for Regression of 4-H Youth Program Experiences, Sources of 4-H Project Information, and Units of 4-H Participation on 4-H Alumni Life Skills Development for 4-H Alumni

Independent Variables	4-H Alumni Life Skills		
	Competency	Contributory	Coping
<u>4-H Program Experiences</u>			
Years of Participation	.079	.115 <sup>a</sup>	.118
Club Officer or Committee Member	.273 <sup>a</sup>	.100	-.052
Participated in Community Service Projects	.201 <sup>a</sup>	.071	.068
Participated in Stock Shows	.084	-.013	-.030
Participated in 4-H Contests	.030	.092	.038
4-H Club Meetings	.126 <sup>a</sup>	.213 <sup>a</sup>	.100
<u>Sources of 4-H Project Information</u>			
Adult 4-H Leaders	.036	.094	.082
Teen or Juniors Leaders	.034	.133 <sup>a</sup>	.062
County Extension Agents	.087	.242 <sup>a</sup>	.193 <sup>a</sup>
<u>Unit of 4-H Participation</u>			
4-H Community Club	-.009	-.027	.044
<hr/>			
F Value (within group)	12.398 <sup>a</sup>	11.960 <sup>a</sup>	4.681 <sup>a</sup>
R <sup>2</sup>	.295	.288	.136

<sup>a</sup> Significant at alpha = .05.

significant impact on competency life skills development. Collectively, the variables in the 4-H alumni path model accounted for 29.5 percent of the variation in ratings of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

The primary variable affecting contributory life skills development in 4-H alumni was interaction with their county Extension agent. Its coefficients of .242 means that those 4-H alumni who developed contributory life skills had some form of interaction with their county Extension agent. Interaction with their county Extension agent was followed by attending 4-H club meetings (.213), teen or junior leaders (.133), and years of participation (.015). In sum those 4-H alumni who attended 4-H club meetings, worked with junior or teen leaders, and tended to have longer tenure in the 4-H program, were more likely to develop contributory life skills than those not having these program experiences. Units of 4-H participation did not significantly impact the model. Collectively, the variables in the 4-H alumni path model accounted for 28.8 percent of the variation in ratings of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

The third life skill to be examined was coping development. The primary variable affecting coping life skills development in 4-H alumni was interaction with

Table 14

Tests of Significance and Standardized  
Regression Coefficients for Regression of Life  
Skills Development on Adult Community  
Participation for 4-H Alumni

Independent Variables	Adult Community Participation		
	Community Events	Community Score	Extension Score
<u>4-H Alumni Life Skills</u>			
Competency	.128 <sup>a</sup>	.184 <sup>a</sup>	.093 <sup>a</sup>
Contributory	.020	.070	.131 <sup>a</sup>
Coping	-.083	-.063	.137 <sup>a</sup>
F Value (within group)	4.535 <sup>a</sup>	10.898 <sup>a</sup>	18.560 <sup>a</sup>
R <sup>2</sup>	.020	.046	.076

<sup>a</sup> Significant at alpha = .05.

their county Extension agent. Its coefficients of .193 means that those 4-H alumni who developed coping life skills had more contact with their county Extension agent. 4-H program experiences and units of 4-H participation did not impact on the 4-H alumni path model. Collectively, the variables in the 4-H alumni path model accounted for 13.6 percent of the variation in ratings of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

Coefficients for 4-H life skills development indicates the primary variable affecting participation in community events is competency life skills, which means those 4-H alumni who developed participated in community events were more likely to have developed competency life skills. Collectively, the variables in the 4-H alumni path model accounted for 2.0 percent of the variation in ratings of 4-H alumni life skills development.

The primary variable affecting the composite community score in 4-H alumni was competency life skills (.184). This means that those 4-H alumni who developed participated in community organizations and events/ activities tended to have developed competency life skills. Collectively, the variables in the 4-H alumni path model accounted for 2.0 percent of the variation in ratings of contributory life skills development.

The primary variable affecting the composite Extension

Score was coping life skills development (.137). This means that those who use the services of the Cooperative Extension Service tends to have developed interpersonal skills while a 4-H members. Coping life skills development was followed by contributory life skills development (.131) and competency life skills development (.093). In sum those who used the services of the Cooperative Extension Service tended to have developed youth life skills while a member of the 4-H program. The variable 4-H Leader Score which represents those 4-H alumni who have been or are currently serving as an adult 4-H volunteer leaders, indicated no significant difference for 4-H life skills developed or adult community participation.

Table 15 represents the tests of significance and standardized coefficients for regression of personal characteristics with adult community participation on 4-H alumni. Based on the significant F value for each of the regression models presented in Table 15, it was concluded that the joint effects of all the independent variables on the dependent variables (Belonging to a agricultural related group, Community Score, Extension Score) is significantly different from zero. In other words, observed multiple correlations of personal characteristics are not due to sampling fluctuations.

Table 15

Tests of Significance and Standardized Regression  
Coefficients for Regression of Personal Characteristics  
on Adult Community Participation for 4-H Alumni

Independent Variables	4-H Alumni Adult Community Participation		
	Agriculture Group	Community Score	Extension Score
<u>Personal Characteristics.</u>			
Residence	-.151 <sup>a</sup>	.003	-.152 <sup>a</sup>
Level of Education	.173 <sup>a</sup>	.284 <sup>a</sup>	.111
High School Grades	.066	.056	.075
Agriculture Related Job	.149 <sup>a</sup>	.086	.115
Number of Children	-.024	.013	.091
Number of Children over 9 Years of Age	.018	-.027	-.142 <sup>a</sup>
Number of Children in 4-H	.085	.117	.285 <sup>a</sup>
Number of Children in Other Youth Programs	-.026	.007	.135 <sup>a</sup>
Family Income	-.031	.016	-.113
Sex	-.047	.023	-.002
Present Age	-.058	.198	.169 <sup>a</sup>
F Value (within group)	2.513 <sup>a</sup>	3.210 <sup>a</sup>	6.375
R <sup>2</sup>	.105	.130	.228

<sup>a</sup> Significant at alpha = .05.

observed multiple correlations of personal characteristics are not due to sampling fluctuations.

The primary variable affecting belonging to an agricultural related group is level of education. The coefficient of .173 means that those 4-H alumni who belonged to an agricultural related group were more likely to have a higher level of education. Other variables affecting membership in an agricultural related group was residence (-.151) and having an agricultural related job (.149). This meant that those members of an agricultural related group tended to reside on a farm or ranch and have a agricultural related job. Collectively, the variables in the 4-H alumni path model accounted for 10.5 percent of the variation in ratings of personal characteristics.

The primary variable affecting community score was level of education (.284). The coefficient of .284 means that those 4-H alumni who belonged to a community organization, or participated in a community event tended to have a higher level of education. Collectively, the variables in the 4-H alumni path model accounted for 13.0 percent of the variation in ratings of personal characteristics.

The primary variable affecting extension score was the number of children in 4-H. The coefficient of .285 means that those 4-H alumni who had children in 4-H tended to use the services of the Cooperative Extension Service.



Other variables affecting the use of Cooperative Extension Service was present age (.169), residence (-.152), and the number of children in other youth programs (.135). This would indicate that 4-H alumni who used the services of the Cooperative Extension Service were more likely to be younger, live on a farm or ranch, and their children belonged to other youth development programs in addition to 4-H. Collectively, the variables in the 4-H alumni path model accounted for 22.8 percent of the variation in ratings of personal characteristics.

#### **Summary of Results Related to the 4-H Alumni Path Model**

Tables 13, 14, and 15 indicate the following findings: Four-H program experiences develop more competency life skills or knowledge and skills in 4-H alumni. In particular being a club officer or committee member and participating in community service projects are perceived as developing knowledge and skills (competency life skills) in 4-H alumni. Attending 4-H club meeting developed contributory life skills, indicating that 4-H club meetings are good 4-H experiences to develop social skills.

Sources of 4-H project information developed contributory and coping life skills. County Extension agents were the prime variable in developing interpersonal and social life

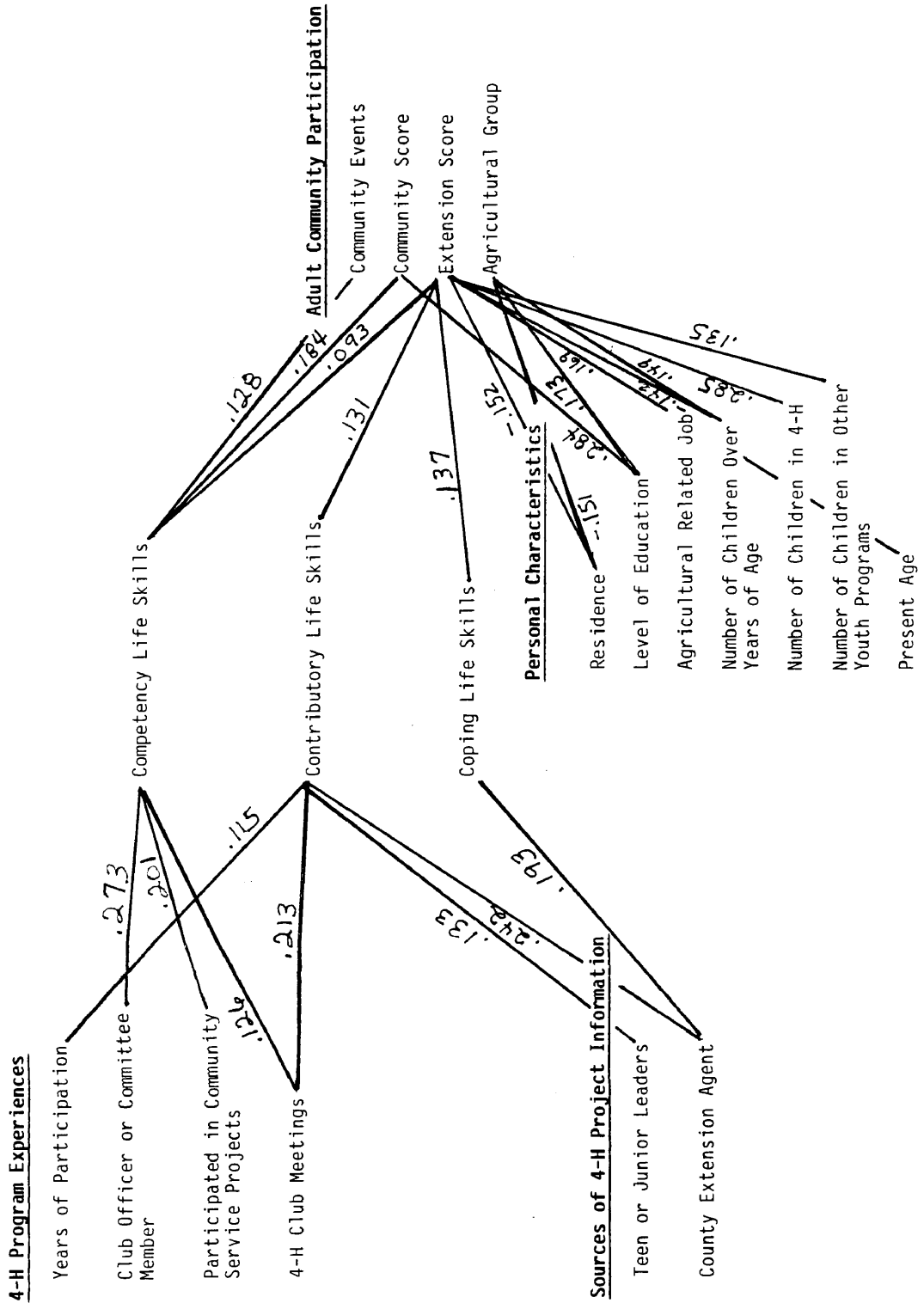
skills in 4-H alumni. This would indicate that county Extension agents either need courses in child development or that in-service training be provided to agents to strengthen their understanding of their relationships with 4-H members.

Community events participation and the composite community score variables were associated with only the competency life skills variable, meaning that those 4-H alumni who developed knowledge and skills tended to participate in community organizations and events/activities. All the life skills variables were associated with 4-H alumni using the services of the Cooperative Extension Service. In particular the development of coping and contributory life skills indicates that 4-H members who have developed social and/or interpersonal skills are seeking the services of the Cooperative Extension Service as adults. This would indicate that 4-H alumni are attracted to the 4-H program initially to develop competency (knowledge and skills) life skills but develop substantially more social and interpersonal life skills. Those 4-H alumni who develop social and/or interpersonal life skills are more likely to use the services of the Cooperative Extension Service. The 4-H program is thus developing the future clientele of the Cooperative Extension Service. Those 4-H alumni who were members of an agricultural related group tended to reside on a farm or ranch, have an

agricultural related job, and have a higher level of education. Those 4-H alumni who participated in their local communities tended to have a higher level of education. Related to the above paragraph, those 4-H alumni who used the services of the Cooperative Extension Service tended to have children in 4-H, be older, live on a farm or ranch, and have children in other youth programs. The Cooperative Extension Service can be viewed as a family organization, with the adults using the various services available and the children being involved in the 4-H program.

Figure 7 represents a summary of Tables of 13, 14, and 15. Only those regression coefficients that were significantly associated are reported and each path coefficient reflects the magnitude of the direct effect of each particular variable on the dependent variable.

Figure 7  
 Significant Relationships for the Path Analysis Model for 4-H Program Alumni



### **Non 4-H Alumni Path Analysis Model**

Tables 16, 17, and 18 represents Figure 3 and the tests of significance and standardized regression coefficients for regression of non 4-H alumni life skills development on non 4-H youth program experiences and sources of project information. Factors affecting competency, contributory, and coping life skills development in non 4-H youth program participants are presented in Tables 16 and 17. The primary variable affecting competency life skills development in non 4-H youth was being a club officer or committee member. The coefficient of .257 means those respondents who developed non 4-H competency life skills were more likely to be club officers or committee members. Other variable affecting competency life skills development in non 4-H alumni were years of participation (.125) and attending club meetings (.108). In sum, those non 4-H alumni who attended club meetings and had longer tenures of membership, were more likely to develop competency life skills than those without these youth program experiences. Collectively, the variables in the non 4-H alumni path model accounted for 39.8 percent of the variation in ratings of non 4-H program experiences. The primary variable affecting contributory life skills development in non 4-H alumni was participation in a exchange trip. Its coefficients of .348 means that those

Table 16

Tests of Significance and Standardized Regression Coefficients for Regression of Non 4-H Youth Program Experiences and Sources of Project Information on Non 4-H Alumni Life Skills Development for Non 4-H Alumni

Independent Variables	Non4-H Alumni Life Skills		
	Competency	Contributory	Coping
<u>Youth Program Experiences</u>			
Years of Participation	.125 <sup>a</sup>	.018	.097 <sup>a</sup>
Club Officer or Committee Member	.257 <sup>a</sup>	.103 <sup>a</sup>	.005
Participated in Community Service Project	.057	.051	-.029
Participated in Exchange Programs	.193 <sup>a</sup>	.348 <sup>a</sup>	.173 <sup>a</sup>
Participated in National Trips	.0001	.183 <sup>a</sup>	.125 <sup>a</sup>
Club Meetings	.108 <sup>a</sup>	.147 <sup>a</sup>	.145 <sup>a</sup>
F Value (within group)	40.281 <sup>a</sup>	48.747 <sup>a</sup>	20.710 <sup>a</sup>
R <sup>2</sup>	.398	.444	.254

<sup>a</sup> Significant at alpha = .05.

non 4-H members who developed contributory life skills were more likely to have participated in a exchange trip. Participation in exchange trips was followed by participation in national trips (.183), attending club meetings (.147), and being a club officer and committee member (.103). Collectively, the variables in the non 4-H alumni path model accounted for 44.4 percent of the variation in ratings of non 4-H program experiences. The third non 4-H life skill to be examined was coping development. The primary variable affecting coping life skills development in non 4-H alumni was participation in a an exchange trip. Its coefficient of .173 means that those non 4-H members who developed contributory life skills were more likely to have participated in a exchange an trip. Participation in exchange trips was followed by attending club meetings (.145), participation in national trips (.125), and years of participation (.097). This indicates that those non 4-H alumni who developed coping life skills were more likely to attend club meetings, participate in national trips and have a longer tenure of membership. Collectively, the variables in the non 4-H alumni path model accounted for 25.4 percent of the variation in ratings of non 4-H program experiences. Table 17 reports the coefficients for regression of non 4-H skills developed on adult community participation. Coefficients for non 4-H life skills indicated the primary

Table 17

Tests of Significance and Standardized  
Regression Coefficients for Regression of  
Life Skills Development on Adult Community  
Participation for Non 4-H Alumni

Independent Variables	Adult Community Participation		
	Community Events	Community Score	Extension Score
<u>Non 4-H Alumni Life Skills</u>			
Competency	.129 <sup>a</sup>	.183 <sup>a</sup>	.061
Contributory	.057	.054	.030
Coping	-.056	-.026	.074
F Value (within group)	5.792 <sup>a</sup>	10.812 <sup>a</sup>	4.091 <sup>a</sup>
R <sup>2</sup>	.024	.044	.017

<sup>a</sup> Significant at alpha = .05.



variable affecting participation in community events was competency life skills (.129), which means those non 4-H alumni who participated in community events were more likely to have developed knowledge and skills while in a Non 4-H youth program. Collectively, the variables in the non 4-H alumni path model accounted for 2.4 percent of the variation in rating of adult community participation.

The primary variable affecting the composite community score in non 4-H alumni was competency life skills, which means those non 4-H alumni who developed participated in community organizations and events/activities were more likely to have developed social skills in a non 4-H youth program. Collectively, the variables in the non 4-H alumni path model accounted for 4.4 percent of the variation in rating of life skills development.

There were no non 4-H life skills variables affecting the use of the services of the Cooperative Extension Service by non 4-H alumni. The variable 4-H Leader Score which represents those non 4-H alumni who have been or are currently serving as an adult 4-H volunteer leaders, indicated no significant difference for non 4-H life skills developed or adult community participation.

Table 18 reports regression coefficients of personal characteristics on adult community participation for non 4-H alumni. The adult participation variable being a member of an agricultural related group was not reported

Table 18

Tests of Significance and Standardized Regression  
Coefficients for Regression of Personal Characteristics  
on Adult Community Participation for Non 4-H  
Alumni

Independent Variables	4-H Alumni Adult Community Participation	
	Community Score	Extension Score
<u>Personal Characteristics.</u>		
Residence	-.030	-.173 <sup>a</sup>
Level of Education	.179 <sup>a</sup>	.119
High School Grades	.090	-.084
Agriculture Related Job	-.018	.166 <sup>a</sup>
Number of Children	.014	-.107
Number of Children over 9 Years of Age	-.065	.069
Number of Children in 4-H	.049	.284 <sup>a</sup>
Number of Children in Other Youth Programs	.121	-.002
Family Income	.079	.043
Sex	-.020	.045
Present Age	.165	.044
<hr/>		
F Value (within group)	2.858 <sup>a</sup>	5.113 <sup>a</sup>
R <sup>2</sup>	.100	.167

<sup>a</sup> Significant at alpha = .05.

because its significance is greater than .05 percent. The primary variable affecting community score was the level of education. The coefficient of .179 means that those non 4-H alumni who joined community organization and participated in community events tended to have higher levels of education. Collectively, the adult community participation variable community score in the non 4-H alumni path model accounted for 16.7 percent of the variation in ratings of personal characteristics.

The primary variable affecting extension score was the number of children in 4-H. The coefficient of .284 means that those non 4-H alumni who had children in 4-H tended to use the services of the Cooperative Extension Service. Other variables affecting the use of Cooperative Extension Service by non 4-H alumni was residence (-.173) and having a agricultural related job. This would indicate that non 4-H alumni who used the services of the Cooperative Extension Service were more likely to live on a farm or ranch and work in agriculture. Collectively, the variables in the non 4-H alumni path model accounted for 16.7 percent of the variation in ratings of personal characteristics.

### **Summary of Results Related to the Non 4-H Alumni Path Model**

Tables 16, 17, and 17 indicate the following findings:

Youth program experiences develop youth life skills in non 4-H youth program members. The key variables in the development of competency life skills are being a club officer or committee member and participating in a exchange program. This means that being in an leadership position and participating in an exchange program tends to develop knowledge and skills in non 4-H youth program participants.

Participating in an exchange program, taking a national trip, and attending a youth club meeting develop both contributory (social skills) and coping (interpersonal) life skills, indicating that members of non 4-H youth programs gain valuable personal skills from their participation in non 4-H youth programs. For non 4-H alumni the key variables in the development of competency, contributory, and coping life skills are participating in exchange programs and attending youth program meetings. Those non 4-H members who participate in community events and organizations have developed competency life skills from their non 4-H youth program experiences. The use of the services of the Cooperative Extension Service was not associated with non 4-H life skills development. Those non 4-H alumni who as adults participate in community organizations and events/activities and use the services of the Cooperative Extension Service developed only

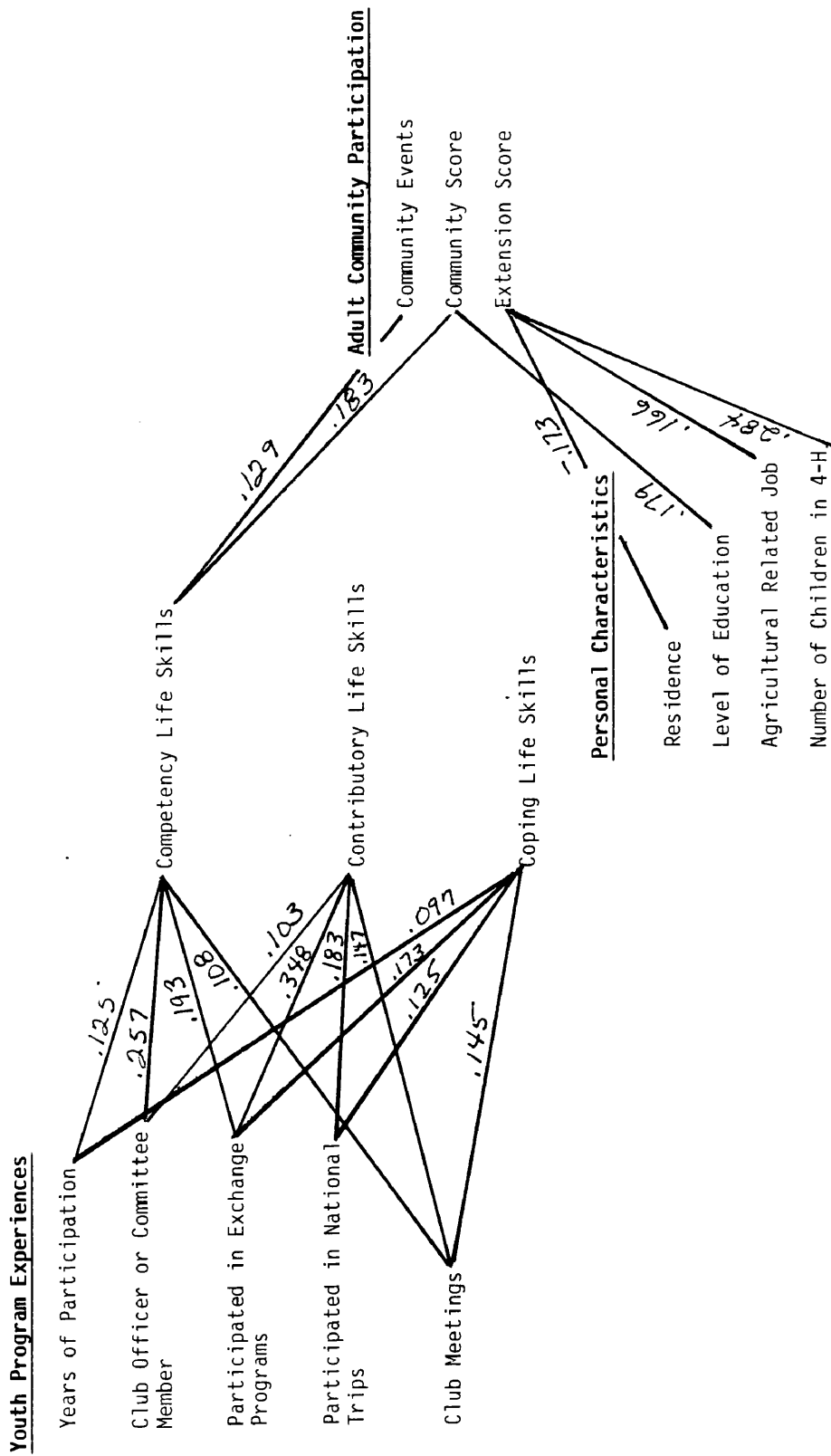
competency (knowledge and skills) life skills. These non 4-H alumni did not develop contributory or coping life skills.

Finally, those non 4-H youth program alumni who participated in community organizations and events/ activities had higher levels of educations. While, those non 4-H alumni who used the services of the Cooperative Extension Service tended to have children in 4-H, reside in the country, and have an agricultural related job. This implies that 4-H is a vehicle that attracts adults to the Cooperative Extension Service.

Figure 8 represents a summary of Tables of 16, 17, and 18. Each path coefficient reflects the magnitude of the direct effect of each particular variable on the dependent variable. Only those regression coefficients that were significant are reported.

Figure 8

Significant Relationships for the Path Analysis Model for Non 4-H Program Alumni



## PATH ANALYSIS MODELS BY TYPE OF YOUTH PROGRAM MEMBERSHIP

Expanding on the concept of 4-H alumni and non 4-H alumni path models as illustrated in Figures 2 and 3 and the results of standardized regression coefficients

illustrated in Figures 7 and 8; the next step is to look at the hierarchy of youth program participation.

As reported in Section III, the three path analysis models were developed to take a more indepth look into the type of youth program youth participated in and the effects of youth development programs of program participants.

Figure 4 represents the path model for those youth program participants who were members of the 4-H program only,

Figure 5 represents the path model for those youth program participants who were members of both 4-H and another

youth program, and Figure 6 represents the path model for those youth program participants who were members of

another youth program only. After reviewing the correlation matrixs as reported in the impact of the 4-H

youth program and non 4-H youth programs, the following variables were included in the analysis of the path

models:

4-H Alumni

4-H Program Experiences

Years of participation

Club officer or committee member

Participated in community service project

Participated in stock show and fairs

Participated in 4-H contests

4-H Club meetings

#### Sources of Project Information

Adult 4-H leaders

Teen or junior leaders

County Extension Agents

#### Units of Participation

4-H community club

#### Adult Community Participation

Agricultural related group

Chamber of commerce

Civic group

Church group

Community Event

Community Score

Extension Score

#### Non 4-H Youth Programs

#### Youth Program Experiences

Years of participation

Club officer or committee member



Participated in community service project

Participated in exchange program

Participated in national trips

Club meetings

#### Adult Community Participation

Agricultural related group

Chamber of commerce

Civic group

Church group

Community event

Community score

Political group

Extension score

#### **Path Analysis for Membership in Both 4-H and Another Youth Program**

Tables 19 through 27 represent tests of significance and standardized regression coefficients for the following type of youth program participation: (1) both 4-H and another youth program membership, (2) 4-H membership only, and (3) another youth program membership only.

Tables 19, 20, and 21 represent Figure 5 and the tests of significance and standardized regression coefficients for youth who were members of both 4-H and another youth program. The results of the tests of significance and

standardized regression coefficients will be used to complete a membership in both 4-H and another youth program path model.

Tables 19 and 20 report the results of the tests of significance and standardized regression coefficients for factors affecting 4-H life skills developed. These factors are 4-H program experiences, sources of 4-H project information, units of 4-H participation, and adult participation.

The primary variable affecting competency life skills development in youth who were members of both 4-H and another youth program was being a club officer or committee member. The coefficient of .377 means those members of both 4-H and another youth program who developed competency life skills were more likely to be a club officer or committee member. The other variable affecting competency life skills development in youth who were members of both 4-H and another youth program was attending a 4-H club meeting. Collectively, the variables in the member of both 4-H and another youth program path model accounted for 38.5 percent of the variation in rating of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

The primary variable affecting contributory life skills development in youth who were members of both 4-H and another youth program was interaction with their county

Table 19

Tests of Significance and Standardized Regression Coefficients for Regression of Youth Program Experiences, Sources of Project Information, and 4-H Units of Participation on Youth Life Skills Development for Youth Who Were Members of Both 4-H and Another Youth Program

Independent Variables	4-H Alumni Life Skills		
	Competency	Contributory	Coping
<u>4-H Program Experiences</u>			
Years of Participation	.126	.084	.260 <sup>a</sup>
Club Officer or Committee Member	.377 <sup>a</sup>	.164 <sup>a</sup>	-.011
Participated in Community Service Projects	.100	.078	.092
Participated in Stock Shows	.055	-.088	-.106
Participated in 4-H Contests	-.074	.116	.088
4-H Club Meetings	.172 <sup>a</sup>	.143 <sup>a</sup>	.144
<u>Sources of 4-H Project Information</u>			
Adult 4-H Leaders	.103	.148 <sup>a</sup>	-.017
Teen or Juniors Leaders	.057	.175 <sup>a</sup>	.164 <sup>a</sup>
County Extension Agents	.078	.176 <sup>a</sup>	.114
<u>Units of 4-H Participation</u>			
4-H Community Club	-.009	-.027	.044
F Value (within group)	9.642 <sup>a</sup>	7.533 <sup>a</sup>	4.385 <sup>a</sup>
R <sup>2</sup>	.385	.328	.222

<sup>a</sup> Significant at alpha = .05.

Table 20

Tests of Significance and Standardized  
Regression Coefficients for Regression of  
Life Skills Development on Adult Community  
Participation for Members of Both 4-H and  
Another Youth Program

Independent Variables	Adult Community Participation		
	Community Events	Community Score	Extension Score
<u>Youth Life Skills</u>			
Competency	.152 <sup>a</sup>	.181 <sup>a</sup>	.008
Contributory	.047	.115	.195 <sup>a</sup>
Coping	-.124 <sup>a</sup>	-.064	.017 <sup>a</sup>
F Value (within group)	3.594 <sup>a</sup>	7.328 <sup>a</sup>	12.803 <sup>a</sup>
R <sup>2</sup>	.030	.060	.100

<sup>a</sup> Significant at alpha = .05.

Extension agent. Its coefficients of .176 means that those youth who were members of both 4-H and another youth program who developed contributory life skills were more likely to have some contact with their county Extension agent. Interaction with their county Extension agent was followed by working with teen or junior leaders (.175), being a club officer or committee member (.164), working with adult leaders (.148), and attending a 4-H club meeting (.143). In sum, those youth who were members of both 4-H and another youth program who had interaction with teen or junior leaders and adult leaders, were a club officer or committee member, and attended a 4-H club were more likely to develop contributory life skills than those who received their source of 4-H project information from these sources. Collectively, the variables in the member of both 4-H and another youth program path model accounted for 32.8 percent of the variation in rating of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

The third life skill to be examined was coping development. The primary variable affecting coping life skills development in youth who were members of both 4-H and another youth program was years of participation. The coefficient of .260 means that those youth who were members of both 4-H and another youth program who

developed coping life skills were more likely to have longer tenure in their youth development program. The years of participation variable was followed by working with teen or junior leaders (.164) which indicates that those members of both 4-H and another youth program were more likely to work with teen or junior leaders.

Collectively, the variables in the member of both 4-H and another youth program path model accounted for 22.2 percent of the variation in rating of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

The primary variable affecting participation in community events in youth who were members of both 4-H and another youth program who developed life skills was competency life skills. The coefficient of .152 means that those youth who were members of both 4-H and another youth program who developed knowledge and skills were more likely to be active in community events. The competency life skills variable was followed by coping life skills development (.124), which indicates that those youth who were members of both 4-H and another youth program tended who developed interpersonal life skills tended to be active in community events. Collectively, the variables in the member of both 4-H and another youth program path model accounted for 3.0 percent of the variation in rating youth life skills development.

The primary variable affecting the composite community score in youth who were members of both 4-H and another youth program who developed life skills was competency life skills. The coefficient of .181 means that those youth who were members of both 4-H and another youth program who developed knowledge and skills were more likely to participation in community organizations and events/activities. Collectively, the variables in the member of both 4-H and another youth program path model accounted for 6.0 percent of the variation in youth life skills development.

The primary variable affecting use of services of the Cooperative Extension Service in youth who were members of both 4-H and another youth program who developed life skills was contributory life skills. The coefficient of .195 means that those youth who were members of both 4-H and another youth program who developed social life skills were more likely to be use the services of the Cooperative Extension Service. The contributory life skills variable was followed by coping life skills development (.017), which indicates that those youth who were members of both 4-H and another youth program tended who developed events. Collectively, the variables in the member of both 4-H and another youth program path model accounted for 7.0 of the variation in adult community

participation.

Table 21 represents the final set of tests of significance and standardized regression coefficients for those youth who were members of both 4-H and another youth program.

This section of the path model for youth who were members of both 4-H and another youth program represents adult community participation versus personal characteristics.

The Extension Score variable was the only adult community participation variable that was significantly related to personal characteristics of members of both 4-H and another youth program. The primary variable affecting Extension Score in youth who were members of both 4-H and another youth program in personal characteristics was the number of children in 4-H a family had.

The coefficient of .235 means that those youth who were members of both 4-H and another youth program who have children in 4-H are more likely to use the services of the Cooperative Extension Service and were more likely to have children in 4-H in their adult life. Collectively, the variables in the member of both 4-H and another youth program path model accounted for 22.2 percent of the variation in rating personal characteristics.

#### **Summary of Results Related to Membership in Both 4-H and Another Youth Program Path Model**

Table 19, 20, and 21 indicate the following:



Table 21

Tests of Significance and Standardized Regression  
Coefficients Regression for Personal Characteristics on  
Adult Community Participation for Youth Who Were Members  
of Both 4-H and Another Youth Program

Independent Variables	4-H Alumni Adult Community Participation Extension Score
<u>Personal Characteristics.</u>	
Residence	-.143
Level of Education	.123
High School Grades	.056
Agriculture Related Job	.117
Number of Children	.119
Number of Children over 9 Years of Age	-.194
Number of Children in 4-H	.235 <sup>a</sup>
Number of Children in Other Youth Programs	.150
Family Income	-.153
Sex	.012
Present Age	.170
<hr/>	
F Value (within group)	3.295 <sup>a</sup>
R <sup>2</sup>	.222

<sup>a</sup> Significant at alpha = .05.

Youth program experiences develop life skills. Those youth who were members of both 4-H and another youth program who were 4-H club officers or committee members and who attended 4-H club meeting tended to develop competency (knowledge and skills) life skills.

The primary variables affecting contributory life skills development was interaction with county Extension agents, interaction with teen or junior leaders, and being a club officer or committee. This indicates the value of contact with county Extension agents and using teen or junior leaders as teachers, leaders, and role models, which results in members of both 4-H and another youth program seeing the value of being a 4-H club officer or committee member.

The primary variable affecting coping life skills development was years of participation, indicating that development of interpersonal life skills takes time. Interaction with teen or junior leaders also affects the development of coping life skills, which shows the importance of time and the interaction with older role models has on the development of interpersonal life skills development.

Table 20 indicated that the primary variable affecting the participation in community organizations and events/ activities was competency life skills in those youth who were members of both 4-H and another youth program,

meaning that those youth developed knowledge and skills while in a youth program tended to participation in their community. The primary variable affecting the use of services of the Cooperative Extension Service was the development of contributory life skills, followed by the development of coping life skills. This would indicate that those youth who were members of both 4-H and another youth development program who developed social and interpersonal life skills tended to use the services of the Cooperative Extension Service.

Extension Service Score was the only adult participation variable significantly related to personal characteristics. The only personal characteristics significantly related to the use of services of the Cooperative Extension Service was the number of children in the 4-H program, meaning that those youth who were members of both 4-H and another youth program who had children in 4-H tended to use the services of the Cooperative Extension Service.

The variable 4-H Leader Score which represents those members of both 4-H and another youth program who have been or are currently serving as an adult 4-H volunteer leaders, indicated no significant difference for non 4-H life skills developed or adult community participation. Figure 9 represents a summary of the tests of significance

and standardized regression coefficients for the 4-H alumni path analysis model.

### **Path Analysis for Membership in the 4-H Program Only**

Tables 22 and 23 report the results of the tests of significance and standardized regression coefficients for factors affecting 4-H life skills developed in members of the 4-H program only. These factors are 4-H program experiences, sources of 4-H project information, units of 4-H participation, and adult participation.

The primary variable affecting competency life skills development in youth who were members of the 4-H youth program only was participating in a community service project. The coefficient of .235 means those members of the 4-H youth program who developed competency life skills were more likely to participate in community service projects. The other variable affecting competency life skills development in youth who were members of the 4-H program was being a 4-H officer or committee member. Collectively, the variables in the member of the 4-H youth program path model accounted for 25.1 percent of the variation in rating of 4-H program experiences, sources of 4-H project information, and units of 4-H participation. The primary variable affecting contributory life skills development in youth who were members of the 4-H program was interaction with their county Extension agent. Its

Figure 9  
 Significant Relationships for the Path Analysis Model for Membership in Both the 4-H Program and Another Youth Program

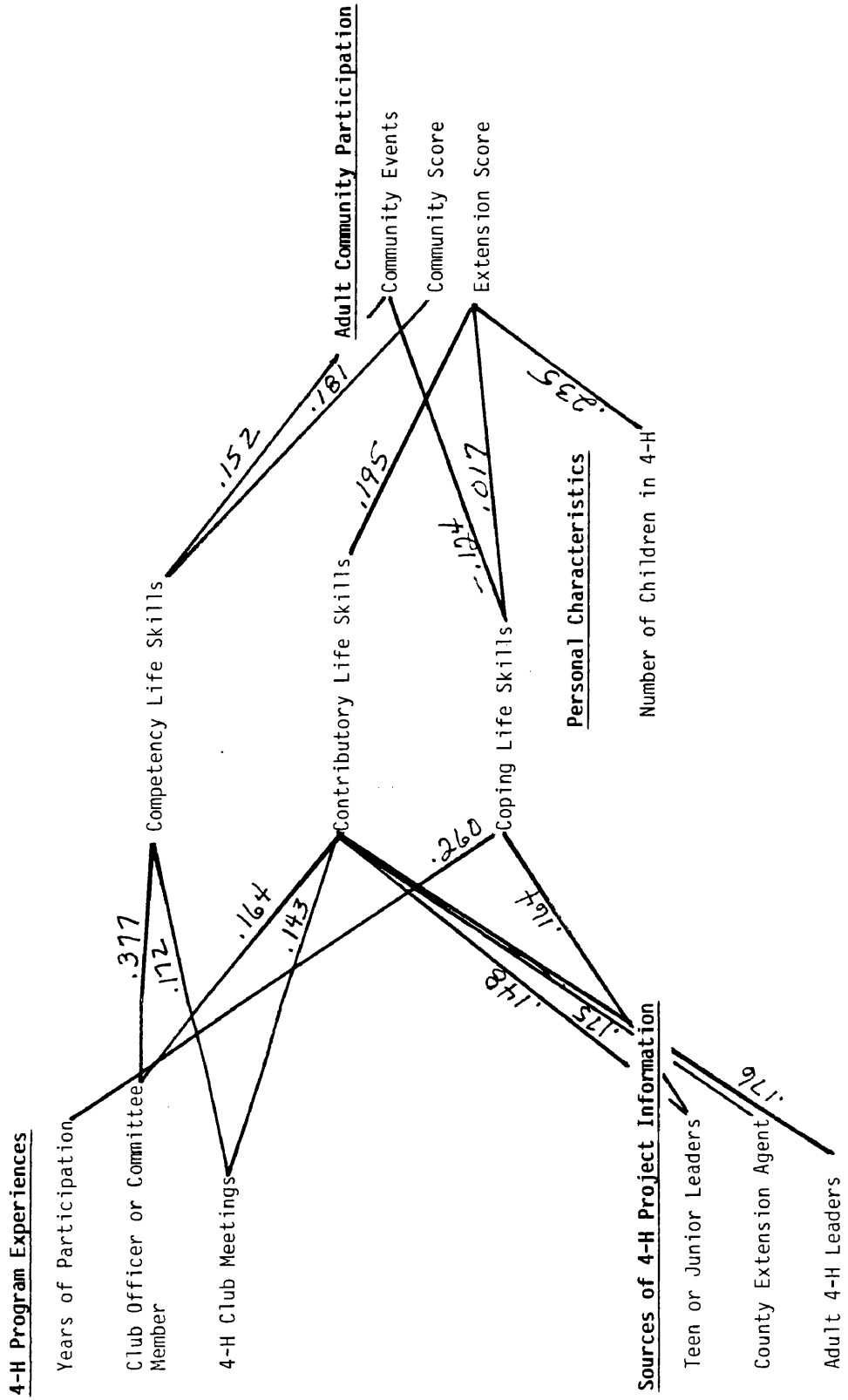


Table 22

Tests of Significance and Standardized Regression  
Coefficients for Regression of Youth Program Experiences,  
Sources of Project Information, and 4-H Units of  
Participation on 4-H Life Skills Development for Youth Who  
Were Members of the 4-H Program Only

Independent Variables	4-H Alumni Life Skills		
	Competency	Contributory	Coping
<u>4-H Program Experiences</u>			
Years of Participation	.071	-.075	-.053
Club Officer or Committee Member	.164 <sup>a</sup>	.014	-.114
Participated in Community Service Projects	.235 <sup>a</sup>	.090	.087
Participated in Stock Shows	.127	-.102	-.064
Participated in 4-H Contests	.120	.056 <sup>a</sup>	-.030
4-H Club Meetings	.089 <sup>a</sup>	.284 <sup>a</sup>	.019
<u>Sources of 4-H Project Information</u>			
Adult 4-H Leaders	-.020	.008	.155
Teen or Juniors Leaders	.003	.075	-.015
County Extension Agents	.085	.327 <sup>a</sup>	.310 <sup>a</sup>
<u>Units of 4-H Participation</u>			
4-H Community Club	-.015	-.020	.036
F Value (within group)	4.389 <sup>a</sup>	5.892 <sup>a</sup>	2.684 <sup>a</sup>
R <sup>2</sup>	.251	.310	.170

<sup>a</sup> Significant at alpha = .05.

coefficients of .327 means that those youth who were members of the 4-H program who developed contributory life skills were more likely to have some contact with their county Extension agent. Interaction with their county Extension agent was followed by attending a 4-H club meeting (.284). In sum, those youth who were members of the 4-H program only who attended 4-H club meeting were more likely to develop contributory life skills than those who did not attend 4-H club meetings. were more likely to attend a 4-H club. Collectively, the variables in the member of the 4-H program path model accounted for 31.0 percent of the variation in rating of 4-H program experiences, sources of 4-H project information, and units of 4-H participation.

The third life skill to be examined was coping development. The primary variable affecting coping life skills development in youth who were members of the 4-H program was interaction with their county Extension agent. Its coefficients of .310 means that those youth who were members of the 4-H program who developed contributory life skills were more likely to have some contact with their county Extension agent. Collectively, the variables in the member of the 4-H program path model accounted for 17.0 percent of the variation in rating of 4-H program experiences, sources of 4-H project information, and units

of 4-H participation.

Table 23 reports the results of the affects of youth life skills development on adult community participation.

Community Score and Extension Score were the only adult participation variables that were significantly related in the analysis.

The primary variable affecting the composite variable Community Score in youth who were members of the 4-H program was the development of competency life skills. The coefficient of .144 means that those youth who were members of the 4-H program who developed competency life skills were more likely to be involved in community organizations and events/activities. Collectively, the variables of 4-H life skills development for members of the 4-H program only path model accounted for 2.7 percent of the variation in rating adult community participation. The primary variable affecting use of the services of the Cooperative Extension Service in youth who were members of the 4-H youth program in 4-H life skills development was competency life skills.. The coefficient of .141 means that those youth who were members of both 4-H and another youth program who developed competency life skills were more likely to be use the services of the Cooperative Extension Service. Collectively, the variables of 4-H life skills development for members of the 4-H program path model accounted for 5.9 percent of the variation in



Table 23

Tests of Significance and Standardized  
Regression Coefficients for Regression of  
Alumni Life Skills Development on Adult Community  
Participation for Youth Who Were Members of  
the 4-H Program Only

Independent Variables	Adult Community Participation	
	Community Score	Extension Score
<u>Youth Life Skills</u>		
Competency	.144 <sup>a</sup>	.141 <sup>a</sup>
Contributory	.043	.092
Coping	-.058	.107
<hr/>		
F Value (within group)	3.062 <sup>a</sup>	6.841 <sup>a</sup>
R <sup>2</sup>	.027	.059

<sup>a</sup> Significant at alpha = .05.

rating adult community participation.

Table 24 represents the final set of tests of significance and standardized regression coefficients for those youth who were members of only the 4-H program. This section of the path model for youth who were members of only the 4-H program represents adult community participation versus personal characteristics.

The primary variable affecting membership in an agriculture related group was level of education. The coefficient of .261 means that those youth who were only members of the 4-H program who were most likely to join agricultural related groups were those respondents having higher levels of education and who lived in rural areas. Collectively, the variables in the member of only the 4-H program path model accounted for 17.8 percent of the variation in rating personal characteristics.

The primary variable affecting the community score variable was level of education. The coefficient of .255 means that those youth who were only members of the 4-H program and participation in community organizations, events and activities were more likely to have completed higher levels of education. Level of education was followed by present age (.184), which means that those youth who were only members of the 4-H program and participation in community organizations, events and

Table 24

Tests of Significance and Standardized Regression  
Coefficients for Regression of Personal Characteristics  
on Adult Community Participation for Youth Who Were  
Members of the 4-H Program Only

Independent Variables	4-H Alumni Adult Community Participation		
	Agriculture Group	Community Score	Extension Score
<u>Personal Characteristics.</u>			
Residence	-.220 <sup>a</sup>	-.121	-.202
Level of Education	.261 <sup>a</sup>	.255 <sup>a</sup>	.0007
High School Grades	.144	.087	.090
Agriculture Related Job	.010	-.083	.077
Number of Children	-.073	-.082	-.032
Number of Children over 9 Years of Age	.129	.034	-.031
Number of Children in 4-H	.064	.163	.360 <sup>a</sup>
Number of Children in other Youth Programs	-.123	.090	.129
Family Income	.016	.131	-.069
Sex	-.060	.057	-.059
Present Age	-.012	.243 <sup>a</sup>	.184 <sup>a</sup>
<hr/>			
F Value (within group)	1.933 <sup>a</sup>	2.017 <sup>a</sup>	3.115 <sup>a</sup>
R <sup>2</sup>	.178	.185	.259

<sup>a</sup> Significant at alpha = .05.

activities were more likely to be older. Collectively, the variables in the member of only the 4-H program path model accounted for 18.5 percent of the variation in rating personal characteristics.

The primary variable affecting the Extension score variable was the number of children in 4-H. The coefficient of .360 means that those youth who were only members of the 4-H program and used the services of the Cooperative Extension Service were more likely to have children in the 4-H program. Number of children in 4-H was followed by present age (.184), which means that those youth who were only members of the 4-H program and used the services of the Cooperative Extension Service were more likely to be older. Collectively, the variables in the member of only the 4-H program path model accounted for 25.9 percent of the variation in rating personal characteristics.

#### **Summary of Results Related to the 4-H Only Membership Path Model**

Tables 22, 23, and 24 indicated the following:

The primary 4-H program experiences affecting the development of competency life skills development who were members of the 4-H program only were participating in community service projects, being a club officer or committee member, and attending 4-H club meetings.

This indicates that those 4-H alumni only who developed knowledge and skills life skills participated in community in community service projects, were 4-H club officers or committee members, and attending 4-H club members.

The primary variable affecting contributory life skills development in youth who were members of the 4-H program only was interaction with a county Extension agent, indicating the role model status placed on the county Extension agent and the agents need for an understanding of the youth developmental process. Attending a 4-H club meeting also affected the development of social life skills.

The primary variable affecting the development of coping life skills in youth who were members of the 4-H program only was interaction with their county Extension agent followed by interaction with adult 4-H leaders, indicating that these youth are identifying agents and leaders as significant role models in their life. County Extension agents and adult 4-H leaders need to understand how youth develop both socially and psychologically.

The primary variable affecting adult community participation in youth who were members of the 4-H program only was competency life skills development. Other life skills were not significantly related to adult community participation. Therefore, those youth who were members of the 4-H program only who participated in community

organizations and events/activities and used the services of the Cooperative Extension Service developed knowledge and skills.

Those youth who were members of the 4-H program only who were most likely to join an agricultural related group were those having higher levels of education and resided on a farm or ranch. Four-H program members only who were most likely to participate in community organizations and events/activities were most likely to have a higher level of education and be older. While 4-H only alumni who were most likely to use the services of the Cooperative Extension Service were those having children in the 4-H program, reside on a farm or ranch, and be older.

The variable 4-H Leader Score which represents those members of only the 4-H program who have been or are currently serving as a adult 4-H volunteer leader, indicated no significant difference for those members of only the 4-H program for 4-H life skills development or adult community participation. Figure 10 represents a summary of the tests of significance and standardized regression coefficients for the membership in only the 4-H alumni path analysis model.

#### **Path Analysis for Membership in Another Youth Program Only**

Tables 25 and 26 report the results of the tests of

Figure 10

Significant Relationships for the Path Analysis Model for Membership in the 4-H Program Only

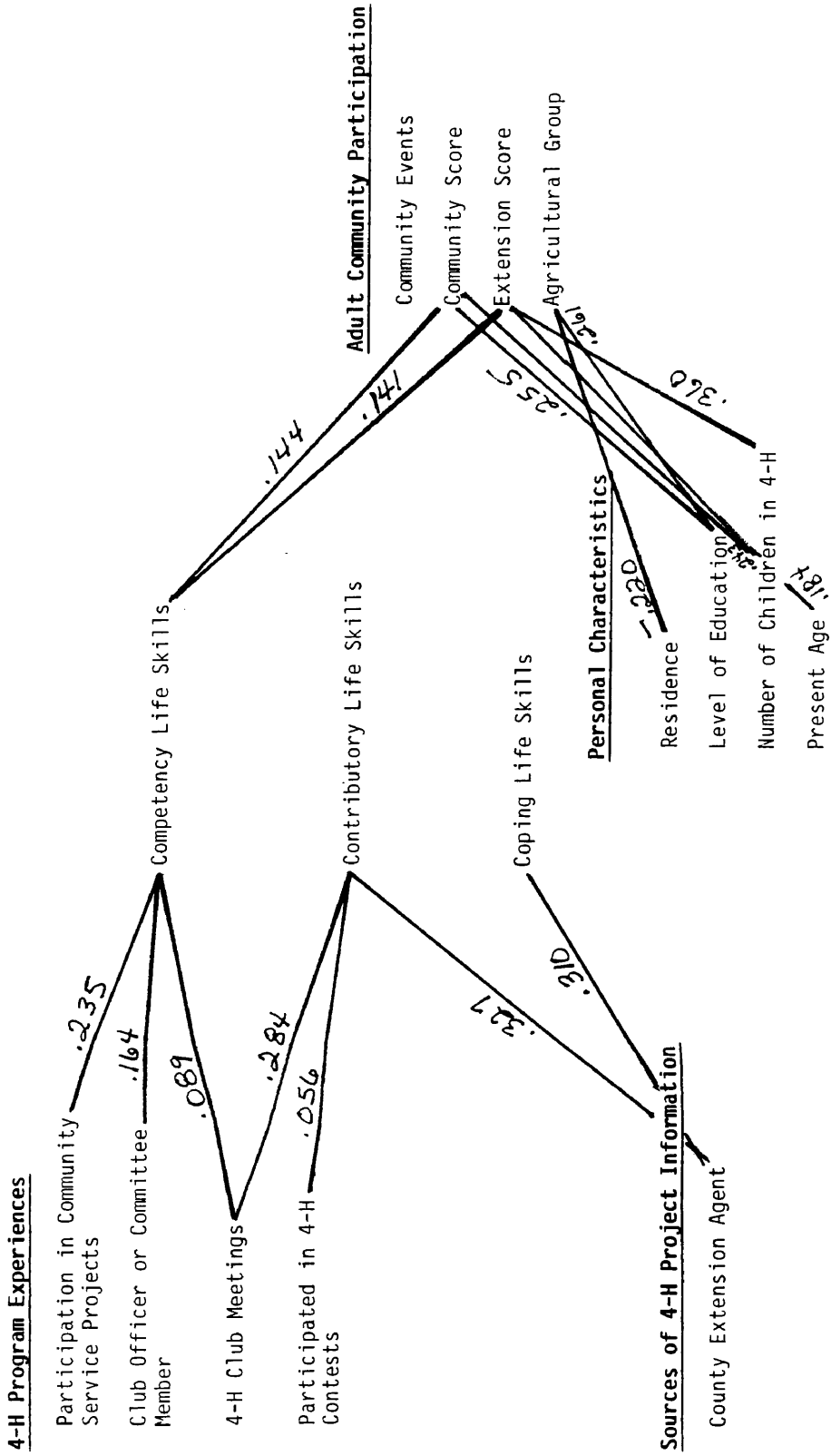


Table 25

Tests of Significance and Standardized Regression Coefficients for Regression of Youth Program Experiences, Sources of Project Information, and 4-H Units of Participation on Youth Life Skills Development for Youth Who Were Members of Another Youth Program Only

Independent Variables	Youth Program Alumni Life Skills		
	Competency	Contributory	Coping
<u>Program Experiences</u>			
Years of Participation	.149 <sup>a</sup>	.131 <sup>a</sup>	.143 <sup>a</sup>
Club Officer or Committee Member	.272 <sup>a</sup>	.051	-.020
Participated in Community Service Projects	.131 <sup>a</sup>	.138 <sup>a</sup>	.074
Participated in Exchange Programs	.027	-.016	.026
Participated in National Trips	.081 <sup>a</sup>	.076 <sup>a</sup>	.075 <sup>a</sup>
Club Meetings	.248 <sup>a</sup>	.400 <sup>a</sup>	.283 <sup>a</sup>
F Value (within group)	37.433 <sup>a</sup>	31.137 <sup>a</sup>	14.217 <sup>a</sup>
R <sup>2</sup>	.278	.242	.127

<sup>a</sup> Significant at alpha = .05.



significance and standardized regression coefficients for factors affecting non 4-H life skills developed in members of another youth only. These factors are program experiences and adult participation.

The primary variable affecting competency life skills development in youth who were members of another youth program only was being a club officer or committee member. The coefficient of .272 means members of another youth program only who were club officers or committee members were more likely to have developed competency life skills. The other variable affecting competency life skills development in youth who were members of another youth program only was attending club meetings (.248), years of participation (.149), participation in a community service project (.131) and national trip (.081). In sum, those members of another youth program who attend club meetings, had longer tenures of membership, and participated in community service and national trips were more likely to develop competency life skills. Collectively, the variables in the member of another youth program only path model accounted for 27.8 percent of the variation in rating of program experiences.

The primary variable affecting contributory life skills development in youth who were members of another youth program only was attending club meetings. Its coefficient of .400 means that those youth who were members of another

youth program only who developed contributory life skills were more likely to attend club meetings. Attending club meetings was followed by participation in community service projects (.138), years of participation (.131), and participation in national trips (.076). In sum, those youth who were members of another youth program only who participated in community service projects and national trips, and had longer tenures of membership were more likely to develop contributory life skills. Collectively, the variables in the member of another youth program only path model accounted for 24.2 percent of the variation in rating of program experiences.

The third life skill to be examined was coping development. The primary variable affecting coping life skills development in youth who were members of another youth program only was attending club meetings. The coefficient of .283 means that those youth who were members of another youth program only who developed coping life skills were more likely to attend club meetings. The attending club meetings variable was followed by years of participation (.143) and participation in national trips (.075). In sum, those members of another youth program who attend club meetings and participated in national trips were more likely to develop coping life skills. Collectively, the variables in the member of another youth

program only path model accounted for 12.7 percent of the variation in rating of program experiences.

Analysis of youth life skills development variables for those youth who were members of another youth program only indicated no significant relationship with adult community participation variables. Table 26 represents the final set of tests of significance and standardized regression coefficients for those youth who were members of another youth program only. This section of the path model for youth who were members of another youth program only represents adult community participation versus personal characteristics.

The primary variable affecting membership in an agriculture related group was residence. The coefficient of  $-.190$  means that those youth who were only members of another youth program and an agriculture related group were more likely to have resided on a farm or ranch. Residence was followed by having a agricultural related job ( $.138$ ), which means that those youth who were only members of another youth program and an agriculture related group were more likely to have a agriculture related job. Collectively, the variables in the member of only another youth program path model accounted for 8.5 percent of the variation in rating personal characteristics.

The primary variable affecting the community score

Table 26

Tests of Significance and Standardized Regression  
Coefficients for Regression of Personal Characteristics  
on Adult Community Participation for Youth Who Were Members  
of Another Youth Programs Only

Independent Variables	4-H Alumni Adult Community Participation		
	Agriculture Group	Community Score	Extension Score
<u>Personal Characteristics.</u>			
Residence	-.190 <sup>a</sup>	-.030	-.235 <sup>a</sup>
Level of Education	.101	.148	.078
High School Grades	.097	.149 <sup>a</sup>	-.014
Agriculture Related Job	.138 <sup>a</sup>	-.041	.138 <sup>a</sup>
Number of Children	.024	-.012	-.097
Number of Children over 9 Years of Age	-.094	-.083	.047
Number of Children in 4-H	.010	.066	.247 <sup>a</sup>
Number of Children in other Youth Programs	.024	.119	.007
Family Income	.043	.079	.051
Sex	-.048	-.022	.079
Present Age	.070	.210 <sup>a</sup>	.090
<hr/>			
F Value (within group)	1.840 <sup>a</sup>	2.826 <sup>a</sup>	4.116 <sup>a</sup>
R <sup>2</sup>	.085	.125	.172

<sup>a</sup> Significant at alpha = .05.

variable was present age. The coefficient of .210 means that those youth who were only members of another youth program and participation in community organizations, events and activities were more likely to be older. Present age was followed by high school grades (.149), which means that those youth who were only members of another youth program and participation in community organizations, events and activities were more likely to have had higher grades in high school. Collectively, the variables in the member of only another youth program path model accounted for 12.5 percent of the variation in rating personal characteristics.

The primary variable affecting the Extension score variable was the number of children in 4-H. The coefficient of .247 means that those youth who were only members of another program and used the services of the Cooperative Extension Service were more likely to have children in the 4-H program. Number of children in 4-H was followed by residence (-.235) and an agricultural related job (.138) which means that those youth who were only members of another youth program and used the services of the Cooperative Extension Service were more likely to live on a farm or ranch and have an agricultural related job. Collectively, the variables in the member of only another youth program path model accounted for 17.2 percent of the variation in rating personal

characteristics.

### **Summary of Results Related to Membership in Another Youth Program Only Path Model**

Tables 25 and 26 report the results of program experiences on youth life skills development and personal characteristics on adult community participation for those youth who were members of another youth program only.

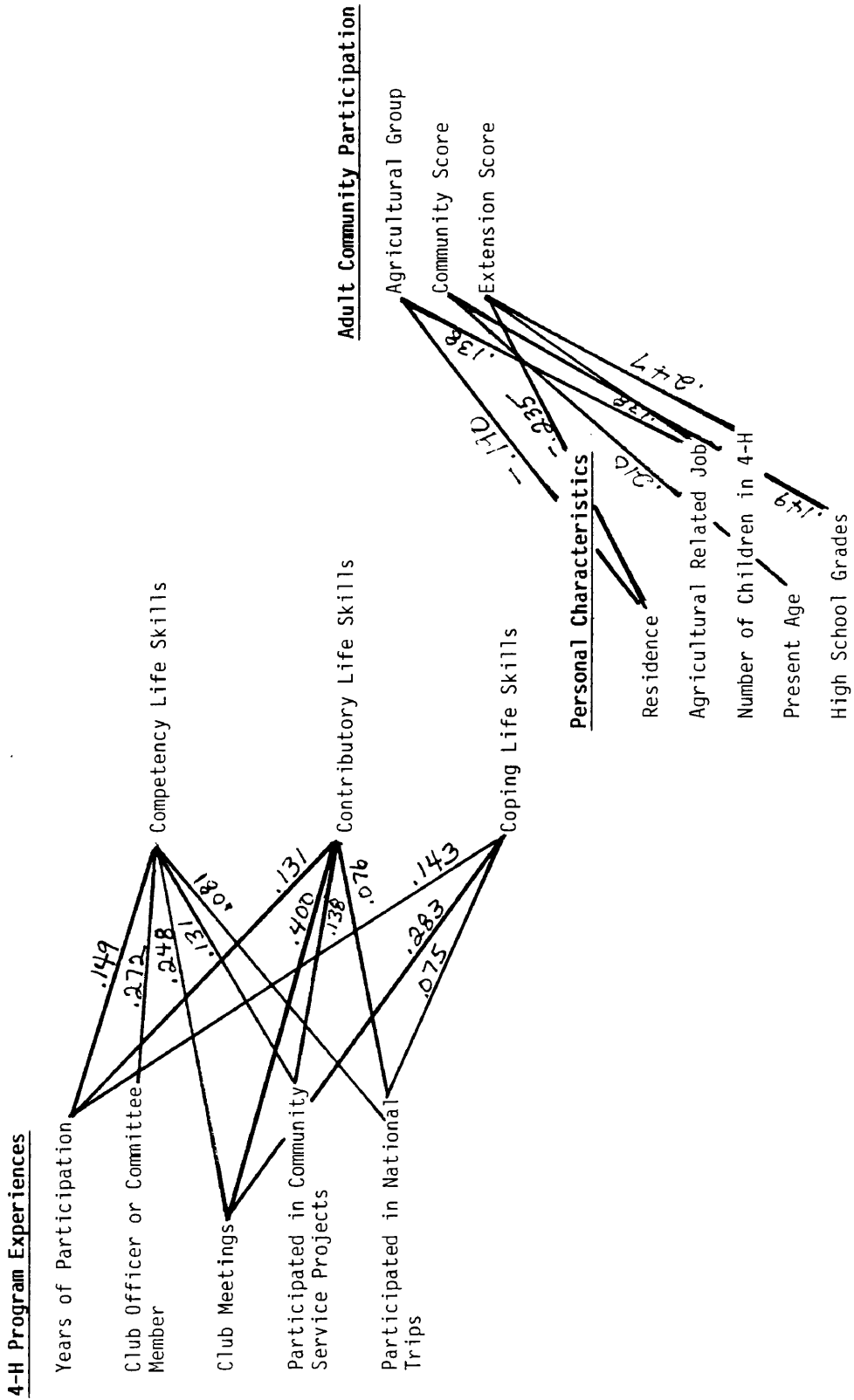
For those youth who were members of another youth program only who developed competency life skills were more likely to have been a club officer or committee member, attend club meetings, participated longer, participated in community service projects, and participated in national trips. Members of another youth program only who developed contributory life skills were more likely to have attended a club meeting, participated in community service projects, participated longer, and participated in national trips. Finally, those youth who were members of another youth program only who developed coping life skills were more likely to have attended club meetings, participated longer, and participated in a national trip.

Table 26 represents youth who were members of another youth development program only who participated in adult community organization or events/activities. For those youth who were members of another youth program only who were members of an agricultural related group, were more

likely to have an agricultural related job and live in the country. Those youth who were members of another youth program only who participated in community organizations and events/activities, were more likely to be older and have had higher high school grades. Youth who were members of another youth program only who used the services of the Cooperative Extension Service, were more likely to have children in the 4-H program, live in a metropolitan area, and have an agricultural related job. The variable 4-H Leader Score which represents those members of another youth program only who have been or are currently serving as a adult 4-H volunteer leader, indicated no significant difference for life skills development or adult community participation. Figure 11 represents a summary of the tests of significance and standardized regression coefficients for the membership in only another youth program path analysis model.

Figure 11

Significant Relationships for the Path Analysis Model for Membership in Another Youth Program Only





## CHAPTER V.

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### SUMMARY

This study reviewed the theories, historical, psychological, social, and intellectual foundations of experiential education, and life skills development as they relate to the 4-H program. It was the general purpose of this study to investigate the variables (youth life skills, personal characteristics, and community participation) that influence 4-H alumni to become 4-H volunteer leaders.

#### Statement of the Problem

Presently, 4-H does not know the magnitude of the impact of the 4-H program on 4-H members. The questions that the 4-H program needs answers to include the following:

1. What is the 4-H experience?
2. What results are produced from individual 4-H experiences and are these the intended results?
3. What are the expected participant results from different groupings of 4-H experiences?
4. How successful is the 4-H program in developing life skills in 4-H members?
5. Do 4-H members become contributing members of society?

6. What are the variables (life skills, personal characteristics, and community participation traits) that influence 4-H alumni to become 4-H volunteer leaders.

### **Purpose of the Study**

Finding the answers to the questions posed in the Statement of the Problem would allow the 4-H program to:

1. State what 4-H can do and to describe its successes.
2. Place emphasis on long term programming.
3. Develop strategies to use to reach clientele with more effective programming.
4. Analyze the effectiveness of the 4-H experiential (learn-by-doing) program.
5. Identify the life skills developed in current 4-H leaders who are 4-H program alumni.
6. Identify the effect the 4-H experience has on future community participation by 4-H alumni.
7. Identify the characteristics of 4-H volunteer leaders who are 4-H alumni.

### **Methodology**

This study was part of nationwide effort entitled The 4-H Alumni Study (Ladewig and Thomas, 1987) and conducted by Texas Agricultural Extension Service in cooperation with the Department of Rural Sociology of the Texas Agricultural Experiment Station. A telephone survey was developed to measure respondent perceptions of their 4-H and/or youth program experience. The Survey Research

Center at Texas A&M University conducted the telephone survey in October of 1985.

A path model was developed for 4-H alumni, non 4-H alumni, 4-H alumni who belonged to no other youth organizations and 4-H alumni who belonged to both 4-H and another youth program membership, and another youth organization.

Variables in each path model were subjected to a correlation analysis to determine their associational relationship to other components of the path model.

Standardized regression coefficients were used for comparisons between different variables within a causal model applied to a mutual group of respondents.

## **CONCLUSIONS**

Chapter 4 reported the results of the data analysis and a discussions for each youth program membership path model. The following is a summarization of the major multiple regressions conclusions reported in Chapter 4:

1. Youth leadership programs (4-H and others) are effective/visible means of developing/ contributing/responsible/involved adult members of a community.
2. 4-H and other youth program projects are the means of developing well rounded youth, with the longterm outcomes affecting interpersonal, and social life skills.
3. Volunteer 4-H adult leaders do not come from the population of 4-H alumni. 4-H attracts a variety of volunteers from all backgrounds of the general population.

4. Being a club officer or committee member develops youth life skills.
5. Attending youth program club meetings develops competency and contributory life skills.
6. Participating in a community service project is effective in the development of interpersonal and social life skills.
7. Those 4-H alumni who developed youth life skills tended to enter the program at an earlier age and have a longer period of membership.
8. In general, for those who have been involved in the 4-H program, 4-H program experiences develop competency life skill while sources of 4-H project information tends to develop contributory and social life skills.
9. The development of coping life skills occurs in those youth who have been involved in the youth development program over a long period of time.
10. Those 4-H alumni who developed competency life skills tended to participate in community organizations as an adult.
11. Those 4-H alumni who develop coping and contributory life skills tended to use the services of the Cooperative Extension Service.
12. Those 4-H alumni who developed youth life skills tended to have project interactions with older junior or teen leaders.
13. The interaction with a county Extension agent is a critical variable in the development of interpersonal and social life skills in 4-H youth.
14. The 4-H program is a development ground for future Cooperative Extension Service clientele.
15. The Cooperative Extension Service is a family oriented agency. Those 4-H alumni that who have agricultural related jobs and have children in 4-H tend to use the services of the Cooperative Extension Service.

16. Those 4-H program alumni who are active in community events/activities and organizations tend to have higher levels of education.
17. Those youth program alumni who participate as adults in community organizations tend to have higher levels of education.
18. Having children in 4-H, residing in the country, and having an agricultural related job are the primary factors in using the services of the Cooperative Extension Service.

### **RECOMMENDED PRACTICES**

The value of any research is the ability of the researcher to apply the findings to practical everyday use. The following are recommendations made from the summarization of the multiple regressions findings, made for incorporation into the 4-H program.

1. The major role of the volunteer adult leader is in personal interaction not as a technical expert.
2. Teaching volunteer 4-H adult leaders how to develop contributory and coping life skills in 4-H members is critical for effective members growth.
3. The primary reason youth are attracted to county Extension agents is the perception of the agents as technical subject-matter experts. This interaction leads to the development of contributory and coping life skills. The county Extension agent is a key adult in the development of a well-rounded 4-Her.
4. Student in agriculture and home economics who are interested in working with 4-H youth should be encouraged to have some child development course work in college, while working on a technical subject matter expertise.

5. In-service training in child development and how to effectively interact with teenage youth should be available for all county Extension agents working in the 4-H program.
6. Recruitment of volunteer 4-H adult leaders should not be restricted to 4-H alumni.
7. The 4-H program needs to make sure that 4-H members' experiences include being a 4-H club officer or committee member, attending 4-H club meetings, and participation in community service projects to insure effective life skills development.
8. The 4-H program needs to recruit 4-H members at the earliest possible entry age level to increase the probability of a longer membership in 4-Hers.
9. The Cooperative Extension Service needs to become more aware of 4-H as a training ground for future Extension clientele.
10. A information program on the services available from the Cooperative Extension Service would be helpful as a program for 4-H members.
11. The 4-H program needs to emphasize more teaching and contact with younger 4-H members by teen or junior leaders.
12. Having multiple subject matter programs for the entire family could strengthen the family orientation of the Cooperative Extension Service.

## RECOMMENDED RESEARCH

The Statement of the Problem listed questions that the 4-H program needs to answer. Establishing an research base is a critical issue confronting present day Cooperative Extension Service 4-H administrators. Hopefully this research has begun to answer some of these questions. However, to establish a legitimate research the 4-H

program needs to continue to research the following:

1. Does 4-H recruit adults for the Cooperative Extension Service?
2. What role does personal experiences play in the development of youth life skills?
3. The interaction between 4-H members and county Extension agents develops contributory and coping life skills. What is involved in this interaction? What are the direct, indirect, and intervening variables affecting this interaction?
4. Redefining the definitions of competency, contributory, and coping life skills.
5. A more indepth look into 4-H program experiences and sources of 4-H program information and their affect on life skills development.
6. Why did currently serving or former volunteer 4-H leaders who are 4-H alumni not complete a 4-H project?
7. What is the attraction to the Cooperative Extension Service by families, with children being in the 4-H program, wives in Extension Homemakers, and husbands attending agricultural related programs?
8. Why does the development of youth life skills (competency, contributory, and coping) led to future adult community participation (Community Score, Extension Score, etc.).
9. What are the personal characteristics (residence, present age, job, number of children, number of children in 4-H, level of education) and life skills (competency, contributory, and coping) factors that led to the use of services of the Cooperative Extension Service?
10. What is the relationship between 4-H program experiences and how do they develop competency life skills?
11. What is the relationship between sources of 4-H project information and the development of contributory and coping life skills?

12. What is the developmental relationships between the three life skills (competency, contributory, and coping)?



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**APPENDIX A**

**4-H ALUMNI STUDY SURVEY QUESTIONS**

## 4-H ALUMNI STUDY SURVEY QUESTIONS

 ID Number \_\_\_\_\_  
 4-H Region \_\_\_\_\_  
 State \_\_\_\_\_

1. As a youth, did you participate in the 4-H youth program?

1. NO \_\_\_\_\_ GO TO QUESTION 3. PAGE 8.

2. YES \_\_\_\_\_

2. In regard to your experiences in 4-H.

A. How old were you when you first participated in 4-H? \_\_\_\_\_ YRS

B. How many years did you participate in 4-H? \_\_\_\_\_ YRS

C. Were you in: (Check all that apply).

1. 4-H Club in School

2. 4-H Community Club

3. 4-H Project Club

4. School Enrichment Program

5. 4-H Camp

6. Individual Study Using 4-H Project Manuals

D. Did you ever complete a 4-H project?

1. NO \_\_\_\_\_ GO TO QUESTION 2.F. PAGE 2.

2. YES \_\_\_\_\_

E. I am going to read several sources of information you may have used in your 4-H project work and ask you to rate each on a scale of one to five with one being of no help and five being very helpful.

HOW WOULD YOU RATE...	OF NO					VERY	DON'T
A 1,2,3,4, OR 5	HELP					HELPFUL	READ
	1	2	3	4	5		NA
1. Project Manuals	1	2	3	4	5		9
2. Adult 4-H Leaders	1	2	3	4	5		9
3. Teen or Junior Leaders	1	2	3	4	5		9
4. Family Members	1	2	3	4	5		9
5. County Extension Staff	1	2	3	4	5		9
6. Books or Magazines	1	2	3	4	5		9
7. 4-H Club Meetings	1	2	3	4	5		9
8. Workshops, Clinics, or Tours	1	2	3	4	5		9

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## QUESTION 2 (cont.)

## F. While in 4-H ...

	<u>NO</u>	<u>YES</u>	<u>DON'T READ NA</u>
1. Were you a club officer or a committee member?	1	2	9
2. Did you participate in:			
A. Community Service Project(s)	1	2	9
B. Stock Show(s) and Fairs	1	2	9
C. Demonstration contests, fashion shows, judging contests or public speaking contests	1	2	9
D. Exchange program (County, Interstate, International)	1	2	9
E. National Trips (4-H Congress, 4-H Conference, etc.)	1	2	9

- G. Now I would like for you to recall your experiences in 4-H, and rate them on a scale of 1 to 5 with one being of no use and five being extremely useful.

## HOW WOULD YOU RATE...

A 1,2,3,4,OR 5

	<u>OF NO USE</u>					<u>EXTREMELY USEFUL</u>	<u>DON'T READ NA</u>
1. The projects you worked on	1	2	3	4	5	9	
2. The people you were with	1	2	3	4	5	9	
3. The competition of the stock shows and fairs	1	2	3	4	5	9	
4. Club meetings	1	2	3	4	5	9	
5. Awards and prizes received	1	2	3	4	5	9	
6. Exchange trips, the opportunity to travel	1	2	3	4	5	9	

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## QUESTION 2 (cont.)

- H. I am going to ask some questions about the challenges and responsibilities with your 4-H Club. As I read each please tell me if you never, seldom, occasionally, often, or very often experienced it.

READ	NEVER	SELDOM	OCCASION-		VERY OFTEN	DON'T READ NA
			ALLY	OFTEN		
1. How often were you given challenging tasks	1	2	3	4	5	9
2. How often were you included in making important decisions	1	2	3	4	5	9
3. How often were you involved in planning club activities	1	2	3	4	5	9
4. How often did you have freedom to develop and use your own skills	1	2	3	4	5	9
5. How often did you feel you made a contribution	1	2	3	4	5	9
6. How often were you given an opportunity to lead others	1	2	3	4	5	9
7. How often did you receive encouragement and help from home	1	2	3	4	5	9

- I. There are a number of ways that the 4-H program could contribute to your personal development. As I read each one, tell me how you would rate it using a scale of 1 to 5 with one being no contribution and five being of great contribution.

## HOW WOULD YOU RATE... A 1,2,3,4 or 5?

	NONE	1	2	3	4	5	GREAT CONTRI- BUTION	DON'T READ NA
2. Developing self confidence	1	2	3	4	5	9		
3. Learning to work with others	1	2	3	4	5	9		
4. Developing leadership skills	1	2	3	4	5	9		



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QUESTION 2 (cont.)	NONE				GREAT CONTRI- BUTION	DON'T READ NA
	1	2	3	4	5	9
5. Developing the ability to communicate effectively						
6. Acquiring skills necessary for employment	1	2	3	4	5	9
7. Learning the importance of good nutrition	1	2	3	4	5	9
8. Learning to select and construct articles for clothing and/or home use	1	2	3	4	5	9
9. Gaining understanding of how factors of production, processing, marketing and distribution of agricultural products affect the well-being of our nation	1	2	3	4	5	9
10. Developing a sense of responsibility	1	2	3	4	5	9
11. Setting personal goals	1	2	3	4	5	9
12. Involvement in community activities	1	2	3	4	5	9

J. Again using a 1 to 5 scale, how much, if any, influence did your participation in 4-H have on

	NONE				VERY MUCH	DON'T READ NA
	1	2	3	4	5	9
1. Continuing your education through high school	1	2	3	4	5	9
2. Continuing your education beyond high school	1	2	3	4	5	9
3. Your choice of job/career	1	2	3	4	5	9
4. Your choice of college to attend	1	2	3	4	5	9
5. Your preparation for assuming leadership responsibilities	1	2	3	4	5	9
6. Your parents' farming and/or home economic practices	1	2	3	4	5	9

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## QUESTION 2 (cont.)

K. Now we'd like to know your opinion of some aspects of the overall 4-H program. Please tell me if you agree or disagree with each of the following:

	<u>DO YOU (READ)</u>				
	<u>Strongly Disagree</u>	<u>Slightly Disagree</u>	<u>(DO NOT) (READ) Uncertain</u>	<u>Slightly Agree</u>	<u>Strongly Agree</u>
1. The 4-H program placed too much emphasis on competition and awards.	1	2	3	4	5
2. 4-H had little to offer Jr. High and High School youth.	1	2	3	4	5
3. There was no need for a 4-H camping program.	1	2	3	4	5
4. 4-H kept young people busy and out of trouble more than most other youth programs.	1	2	3	4	5
5. Parents and leaders benefited in learning from 4-H projects.	1	2	3	4	5
6. 4-H opportunities beyond the club and county were a positive factor for participating in 4-H, such as activities, events awards, and trips	1	2	3	4	5
7. The awards program in 4-H was a positive incentive that kept members in 4-H.	1	2	3	4	5
8. Knowledge and skills gained through 4-H have benefited 4-H members in their adult life.	1	2	3	4	5
9. Agriculture and home economics should continue to be the base of 4-H projects.	1	2	3	4	5

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## QUESTION 2 (cont.)

L. Young people sometimes consider it more of an honor or prestige to belong to one organization than another. Thinking of all youth organizations in your community, in which of the following groups do you think the youth of your community would put 4-H?

- ( ) 1. Bottom group
- ( ) 2. Next to the bottom
- ( ) 3. Middle
- ( ) 4. Next to the top
- ( ) 5. Top Group

M. Did you decide to leave the 4-H program while you were still eligible to participate?

1. NO \_\_\_\_\_ **GO TO QUESTION 2.N. PAGE 6.**

2. YES \_\_\_\_\_

A. How old were you when you left the program \_\_\_\_\_ YRS

B. Were the following reasons important in your decision to drop out of 4-H?

	<u>NO</u>	<u>YES</u>
1. No longer eligible to participate	1	2
2. There was a lack of funds needed to finance my project	1	2
3. Did not meet my interests	1	2
4. 4-H was for younger kids	1	2
5. Did not learn any subject knowledge or beneficial skills	1	2
6. The 4-H program placed too much emphasis on competition	1	2

N. Were you a member of another youth program besides 4-H?

1. No \_\_\_\_\_ **GO TO QUESTION 4. PAGE 12.**

2. Yes \_\_\_\_\_

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## QUESTION 2 (cont.)

- a. Which of the following youth programs were available to you in your community?

ORGANIZATION	WAS AVAILABLE			WERE YOU A MEMBER?	
	Not Sure	No	Yes----->	NO	YES
1. Scouts	9	1	2	1	2
2. Campfire	9	1	2	1	2
3. YMCA/YWCA	9	1	2	1	2
4. Religious Youth Group	9	1	2	1	2
5. FFA/FHA	9	1	2	1	2
6. Boy's/Girl's Clubs	9	1	2	1	2
7. OTHER: _____	9	1	2	1	2

- b. Now I would like for you to compare your 4-H experiences to that of other youth groups. For each experience I read, tell me who was most helpful: 4-H, other youth programs or were they about the same?

	<u>OTHER YOUTH PROGRAMS</u>	<u>ABOUT THE SAME</u>	<u>4-H</u>
1. Learned the most skills and subject knowledge.	1	2	3
2. Learned the most leadership skills.	1	2	3
3. Received the most responsibilities.	1	2	3
4. Learned self confidence worth.	1	2	3
5. Improved communications skills.	1	2	3
6. Developed cooperative skills and attitudes towards others.	1	2	3

**NOW GO TO QUESTION 4. PAGE 12.**

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3. A. What were your reasons for not participating in 4-H?  
**DO NOT READ. CHECK ALL THAT APPLY**

- ( ) 1. 4-H was not available
- ( ) 2. Did not know about 4-H
- ( ) 3. Did not have the funds to participate
- ( ) 4. Did not meet my interests
- ( ) 5. 4-H was for younger youth
- ( ) 6. Did not know how to enroll
- ( ) 7. Friends did not participate
- ( ) 8. Too competitive
- ( ) 9. Not enough challenging opportunities
- ( ) 10. \_\_\_\_\_
- ( ) 11. \_\_\_\_\_

B. As I read the following list of youth programs, please tell me, which programs were available to you.

READ ORGANIZATION	AVAILABLE			WERE YOU A MEMBER?	
	Not Sure	No	Yes----->	NO	YES
1. Scouts	9	1	2	1	2
2. Campfire	9	1	2	1	2
3. YMCA/YWCA	9	1	2	1	2
4. Religious Youth Group	9	1	2	1	2
5. FFA/FHA	9	1	2	1	2
6. Boy's/Girl's Clubs	9	1	2	1	2

**IF RESPONDENT WAS NOT A MEMBER OF ANY YOUTH PROGRAM, GO TO QUESTION 4, PAGE 12.**

C. How old were you when you first participated in youth programs? \_\_\_\_\_ YRS

D. How many years did you participate in youth programs? \_\_\_\_\_ YRS

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## QUESTION 3 (cont.)

E. While you participated in youth programs...

<b>WERE YOU A:</b>	<b><u>NO</u></b>	<b><u>YES</u></b>
1. Club Officer or Committee Member	1	2
<b>DID YOU PARTICIPATE IN:</b>		
2. Community Service Projects	1	2
3. Exchange programs (County, Interstate, International)	1	2
4. National Trips	1	2

F. Now I would like for you to recall your experiences in youth programs. As I read each, please rate it on a scale of 1 to 5 with one being of no use and five being extremely useful.

<b>HOW WOULD YOU RATE . . .</b> <b>1,2,3,4 OR 5</b>	<b><u>OF NO USE</u></b>		<b><u>EXTREMELY USEFUL</u></b>			<b><u>DON'T READ NA</u></b>
1. The projects you worked on	1	2	3	4	5	9
2. The people you were with	1	2	3	4	5	9
3. The activities you participated in	1	2	3	4	5	9
4. Club meetings	1	2	3	4	5	9
5. Awards and prizes received	1	2	3	4	5	9
6. Opportunity to travel	1	2	3	4	5	9

G. Now I am going to ask some questions about the challenges and responsibilities within the youth programs you were a member of. As I read each, please tell me if you never, seldom, occasionally, often, or very often experienced it.

	<b><u>NEVER</u></b>	<b><u>SELDOM</u></b>	<b><u>OCCASION-ALLY</u></b>		<b><u>VERY OFTEN</u></b>	<b><u>DON'T READ NA</u></b>
1. How often were you given challenging tasks	1	2	3	4	5	9
2. How often were you included in making important decisions	1	2	3	4	5	9

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QUESTION 3 (cont.)	-10-					DON'T READ NA
	NEVER	SELDOM	OCCASION- ALLY	OFTEN	VERY OFTEN	
3. How often were you involved in planning club activities	1	2	3	4	5	9
4. How often did you have freedom to develop and use your own skills	1	2	3	4	5	9
5. How often did you feel you made a contribution	1	2	3	4	5	9
6. How often were you given an opportunity to lead others	1	2	3	4	5	9
7. How often did you receive encouragement and help from home	1	2	3	4	5	9

- H. There are several ways that youth programs could contribute to your personal development.

I will read a list of ways and ask you to rate each on a scale of 1 to 5 with one being no contribution and five being of great contribution to your personal development.

**HOW WOULD YOU RATE...**

**A 1,2,3,4 or 5?**

	NONE					GREAT CONTRI- BUTION	DON'T READ NA
	1	2	3	4	5		
1. Developing personal pride in achievements and progress	1	2	3	4	5	9	
2. Developing self confidence	1	2	3	4	5	9	
3. Learning to work with others	1	2	3	4	5	9	
4. Developing leadership skills	1	2	3	4	5	9	
5. Developing the ability to communicate effectively	1	2	3	4	5	9	
6. Acquiring skills necessary for employment	1	2	3	4	5	9	
7. Learning the importance of good nutrition	1	2	3	4	5	9	
8. Learning to select and construct articles for home use and/or clothing.	1	2	3	4	5	9	

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QUESTION 3 (cont.)						GREAT	DON'T
	NONE					CONTRI- BUTION	READ NA
9. Gaining understanding of how factors of production, processing, marketing and distribution of agricultural products affect the well-being of our nation	1	2	3	4	5	9	
10. Developing a sense of responsibility	1	2	3	4	5	9	
11. Setting personal goals	1	2	3	4	5	9	
12. Involvement in community activities	1	2	3	4	5	9	

- I. Again, using the same scale, how much, if any, influence did your participation in youth programs have on the following:

HOW WOULD YOU RATE . . .  
A 1,2,3,4 OR 5

						VERY	DON'T
	NONE					MUCH	READ NA
1. Continuing your education through high school	1	2	3	4	5	9	
2. Continuing your education beyond high school	1	2	3	4	5	9	
3. Your choice of job/career	1	2	3	4	5	9	
4. Your choice of college to attend	1	2	3	4	5	9	
5. Your preparation for assuming leadership responsibilities	1	2	3	4	5	9	

- J. Now we'd like to know your opinion on some characteristics of the youth programs you were a member of. Please indicate the extent to which you agree or disagree with each of the following:

	DO YOU				
	Strongly <u>Disagree</u>	Slightly <u>Disagree</u>	(DO NOT) (READ) <u>Uncertain</u>	Slightly <u>Agree</u>	Strongly <u>Agree</u>
	1. The youth programs you belonged to placed too much emphasis on competition and awards.	1	2	3	4



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QUESTION 3 (cont.)	<u>Strongly Disagree</u>	<u>Disagree</u>	<u>(DO NOT (READ) Uncertain</u>	<u>Agree</u>	<u>Strongly Agree</u>
2. The youth programs you belonged to had little to offer Jr. High and High School youth.	1	2	3	4	5
3. The youth programs you belonged to kept young people busy and out of trouble more than most other youth programs.	1	2	3	4	5
4. In the youth programs you belonged to, parents and leaders benefited as much as members did in learning from youth program projects.	1	2	3	4	5
5. Awards programs were a positive incentive that kept members in my youth program.	1	2	3	4	5
6. Knowledge and skills gained through youth programs have benefited members in their adult life.	1	2	3	4	5

4. Let's now turn to your participation in community events in the past two years.

ARE YOU A MEMBER OF ...	<u>MEMBER</u>		<u>DO YOU-----&gt; ATTEND AT LEAST 25% OF THE MEETINGS</u>		<u>ARE YOU AN OFFICER OR COMMITTEE MEMBER</u>	
	No	Yes----->	No	Yes	No	Yes
A. Civic clubs, luncheon clubs	1	2	1	2	1	2
B. The Chamber of Commerce	1	2	1	2	1	2
C. A committee concerned with community affairs	1	2	1	2	1	2

QUESTION 4 (cont.)

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ARE YOU A MEMBER OF ...	MEMBER		DO YOU AT LEAST 25% OF THE MEETINGS		ARE YOU AN OFFICER OR COMMITTEE MEMBER	
	No	Yes	No	Yes	No	Yes
D. An agricultural related group	1	2	1	2	1	2
E. A political organization	1	2	1	2	1	2
F. An industrial foundation	1	2	1	2	1	2
G. A Church group	1	2	1	2	1	2

5. Are you now or have you ever been a 4-H leader?

1. No

2. Yes...What type of leader were you? (CHECK ALL THAT APPLY)

- a. organizational
- b. project
- c. activity
- d. junior or teen
- e. other

6. Now I'm going to ask you how often you and your family presently participate in programs or use the services of the County Extension Office?

DO YOU	NEVER	ONCE OR TWICE/YEAR	3-5 TIMES/YEAR	EVERY OTHER MONTH	AT LEAST ONCE A MONTH
A. Attend educational programs sponsored by the Extension Service	1	2	3	4	5
B. Consult Extension Agricultural agents for help with agricultural/gardening/landscaping problems	1	2	3	4	5
C. Consult Extension Home Economist for help with consumer/home related matters	1	2	3	4	5
D. Listen to Extension Radio Programs	1	2	3	4	5

QUESTION 6 (cont.)

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**DO YOU**

	<u>NEVER</u>	<u>ONCE OR TWICE/YEAR</u>	<u>3-5 TIMES/YEAR</u>	<u>EVERY OTHER MONTH</u>	<u>AT LEAST ONCE A MONTH</u>
E. Read news articles written by Extension personnel	1	2	3	4	5
F. Receive Extension newsletters	1	2	3	4	5

**BACKGROUND CHARACTERISTICS**

7. In my final series of questions, I'm going to ask you several questions that will help us better understand peoples views on youth development. All information is confidential and will not be identified with your name.

Which of the following best describes where you have lived most of your life?

- 1. On a farm or ranch
  - 2. In the open country, but not on a farm or ranch
  - 3. In a village (under 2,500 people)
  - 4. In a town (2,500-10,000 people)
  - 5. In a city (10,000-50,000 people)
  - 6. In a metropolitan area (city over 50,000 plus nearby suburbs)
8. What was the highest grade in school that you completed?
- 1 Grammar school or less
  - 2 Some high school
  - 3 High school graduate
  - 4 Military/Vocational training
  - 5 Some college
  - 6 College graduate
  - 7 Professional/graduate degree
9. Overall, how would you describe your high school academic achievement?
- 1. MOSTLY D'S
  - 2. MIX OF C'S AND D'S
  - 3. MOSTLY C'S
  - 4. MIX OF C'S AND B'S
  - 5. MOSTLY B'S
  - 6. MIX OF B'S AND A'S
  - 7. MOSTLY A'S
  - 8. ALL A'S (OR EQUIVALENT)

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10. What is your employment status?

**WOULD YOU SAY THAT YOU:**

- 1. Are self-employed
- 2. Work full-time for someone
- 3. Work part-time only
- 4. Are temporarily unemployed
- 5. Are retired and not employed
- 6. Are disabled and not employed
- 7. Are a student and not employed
- 8. Are a full-time homemaker

**GO TO QUESTION 12.**

11. Do you work in an agriculturally related job?

1. NO \_\_\_\_\_

2. YES \_\_\_\_\_

12. Counting yourself, how many people currently reside in your household? \_\_\_\_\_

A. How many children do you have? -----> \_\_\_\_\_

**IF ANSWER IS 0 THEN GO TO QUESTION 13**

B. How many children do you have at least 9 yrs of age or older? \_\_\_\_\_

**IF ANSWER IS 0 THEN GO TO QUESTION 12 D.**

C. How many of them are currently in or have participated in the 4-H youth program? \_\_\_\_\_

D. How many of them are currently a member of other youth programs? \_\_\_\_\_

13. In 1984, in which category was your total family income before taxes?

**(INTERVIEWER; READ AND CHECK RESPONSE)**

**WAS IT:**

- 1. Under \$5,000
- 2. \$5,000 to 10,000
- 3. \$10,000 to 15,000
- 4. \$15,000 to 20,000
- 5. \$20,000 to 25,000
- 6. \$25,000 to 30,000
- 7. \$30,000 to 35,000
- 8. \$35,000 to 40,000
- 9. \$40,000 to 50,000
- 10. \$50,000 or more
- 99. Don't know

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14. What is your race/ethnic background?

**ARE YOU:**

- 1. Black
- 2. White
- 3. Hispanic
- 4. Asian
- 5. American Indian
- 6. Other (Write in) \_\_\_\_\_

15. Are you male or female? **(DO NOT ASK IF YOU CAN DETERMINE BY VOICE OF RESPONDENT.)**

- 1. Male
- 2. Female

16. What is your present age? \_\_\_\_\_ years

**THIS CONCLUDES OUR INTERVIEW. I APPRECIATE THE TIME YOU HAVE TAKEN TO ANSWER OUR QUESTIONS**

**INTERVIEW COMPLETED ON TELEPHONE CONTACT:**

- 1.
- 2.
- 3.