CHILD DEVELOPMENT KNOWLEDGE OF 4-H CLUB MEMBERS
AND NON-4-H CLUB MEMBERS

THESIS

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

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May, 1979
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CHAPTER I

INTRODUCTION

Background of the Problem

Childhood is a time of rapid growth and change. Parents exert tremendous influence in the first years of life (6). A knowledge of the natural stages of development through which a child progresses, and his or her growth changes can be an important and useful tool for the pre-teen, adolescent, and adult. Persons familiar with child development are able to understand their own developmental stages, tasks, and needs more clearly (3, p. 28; 16). Accurate knowledge of child development can help some young people prepare for their future role as parents, as well as help others discover new areas for lifetime careers (13, p. 126).

Though society expects parents to fulfill the important role of child-rearing, many parents are not prepared to assume this role (13). As more information is becoming available for improving the skills needed for the task of child-rearing, parents are becoming increasingly aware of the uniqueness of childhood. Experiences from these early years build the framework for physical, social, emotional, and intellectual development. For these early years to be the most effective, parents should gain a basic knowledge
of child development and be aware of how they can influence a child's later achievements.

According to Milesko-Pytel (15), this basic knowledge of child development is invaluable to parents and future parents. People learn about child growth and development in many ways. Personal experiences, advice from friends and family, articles in books, magazines, and newspapers, advice from medical personnel, and formal classes are methods that are used to obtain information on child development.

The Texas Agricultural Extension Service is an educational agency which, as one area of focus, attempts to educate the public about various aspects of child development (18, p. 1). Personnel of the Texas Agricultural Extension Service are responsible for the 4-H club program in each county (6). Through involvement in the 4-H program, 4-H members are given opportunities to learn about various aspects of family living and human relations, including child development (20).

Significance of the Problem

Much has been written on the ability of adolescents to be effective parents (1, 4, 9, 10, 12, 13, 14, 16), how parenting education should be taught (2, 3, 7, 11, 15, 19 20), and why parenting education should be included in a curriculum for adolescents (3, 4, 9, 13, 20). The literature
indicates that there is a need for adolescents and adults to acquire this knowledge.

Contemporary society is experiencing a shift in family structures (8, p. 6). Adolescents have a greater need to be knowledgeable about child development than ever before, due to earlier marriages, increased birth rate for unwed mothers, and the higher percentage of teenage parents (2; 8, p. 11). However, little research has been done to ascertain knowledge of adolescents concerning child growth and development. In addition, virtually no one has examined the educational impact of 4-H on the knowledge of child development.

Statement of the Problem

The problem of this study was to examine 4-H members' knowledge of the physical, mental, social, and emotional growth of young children, and to compare their knowledge with that of non-4-H members in the same age group. The purpose of this study was to compare

1. The knowledge level of 4-H members concerning physical growth of young children with that of non-4-H members of the same age group.

2. The knowledge level of 4-H members concerning mental growth of young children with that of non-4-H members of the same age group.

3. The knowledge level of 4-H members concerning social growth of young children with that of non-4-H
members of the same age group.

4. The knowledge level of 4-H members concerning emotional growth of young children with that of non-4-H members of the same age group.

5. The knowledge level of 4-H members with experiences in 4-H Family Life Education projects with those 4-H members who have been involved in projects other than Family Life Education projects.

Definition of Terms

The following terms were used throughout the study.

**Adolescents**--persons thirteen to nineteen years of age.

**Babies**--persons from birth to two years of age.

**Children**--persons two to nine years of age.

**4-H member**--a person involved in an organized 4-H club in Parker or Tarrant Counties of Texas for a period of twelve months or longer.

**Non-4-H member**--a person enrolled in homemaking classes in Parker or Tarrant Counties who was not a 4-H member at the time they participated in the study.

**Pre-teens**--persons ten to twelve years of age.

**Texas Agricultural Extension Service (TAEX)**--the Cooperative Extension Service of Texas, funded through the cooperation of the United States Department of Agriculture, the state of Texas through the Texas A & M University system, and the County Commissioners' Courts; an educational
agency designed to "aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same" (17).

Research Questions

1. Do 4-H members exhibit a higher level of knowledge concerning the physical growth of young children than their same-sex classmates of approximately the same age?

2. Do 4-H members exhibit a higher level of knowledge concerning the mental growth of young children than their same-sex classmates of approximately the same age?

3. Do 4-H members exhibit a higher level of knowledge concerning the social growth of young children than their same-sex classmates of approximately the same age?

4. Do 4-H members exhibit a higher level of knowledge concerning the emotional growth of young children than their same-sex classmates of approximately the same age?

5. Do 4-H members who have had experience in Family Life Education projects exhibit a higher level of knowledge concerning child growth and development than those members who have been involved in other types of projects?

Methodology

The population consisted of students enrolled in home-making classes in seven senior high schools in Parker and Tarrant counties of Texas. Using written, standardized
instructions, classroom teachers administered a checklist inventory designed to test the students' knowledge of child development in the areas of physical, mental, social, and emotional growth. Sample selection is discussed in greater detail in Chapter III.

A completely randomized design was used as the research design to examine all research questions. t-tests and one-way analysis of variance were the statistical techniques for all research questions. Overall significance was tested at the .05 level.

Limitations of the Study

The study was limited to those students ages fourteen to seventeen years, enrolled in homemaking I and II classes in seven public high schools in Parker and Tarrant counties of Texas.

Factors which were not considered in the study were the participants' race, socio-economic status, and marital status of their parents. 4-H members were considered as a whole, and not divided by county. This single grouping could have affected the results, since the 4-H experiences tend to differ from county to county.
CHAPTER BIBLIOGRAPHY


CHAPTER II

REVIEW OF LITERATURE

Children are the greatest natural resource of a society. Through them, a culture is continued, technology is carried on, and tradition is handed down from generation to generation. Not only for these reasons, but also to help children develop adequately, parents need to have a basic knowledge of the needs and developmental characteristics of children. By understanding these processes, parents will be better prepared to deal with the changes in children, and to help children through each developmental stage (38, p. 13).

Education for parenthood is an important task (14, 36). Many agencies are attempting to provide this education, particularly for adolescents. Though many teenagers will not face the prospect of parenthood for many years, others are thrust into parenthood with little or no preparation. For many persons, parenthood education is a matter of "too little, too late" (21). Teenage parenthood has created many "high risk" families with an inadequate understanding of and preparation for parenthood (2; 20, p. 4).

The teenage years are a time of maturation, and should be devoted to the growing up process. Unfortunately,
adolescent parents are forced into adult roles before they finish being children themselves (2, p. F-54). Few adolescents consciously wish to assume the role of parenthood; most are mentally and emotionally unprepared for the task (4, p. 28). Adolescence is a time of emotional upheavals, a search for personal identity, a desire for directions, and seeking to fit into real life tasks by developing a personal role to fill (4, 23). New conceptual skills are developed during adolescence. Interpersonal skills are sharpened, as well as the development of new social roles and relationships with others (13, 25, 29).

However unprepared, adolescents are often forced into the role of parent. Between 1950 and 1968, illegitimate births increased from forty per thousand to ninety-seven per thousand (3, p. 4). In 1968, approximately one of every ten girls in the United States under the age of seventeen was a mother (21, p. 5). Between 1960 and 1973, the number of mothers under the age of sixteen in the United States increased by 80 percent. Each year in this country, over 200,000 girls between the ages of 12 and 18 give birth (2, p. F-54); for nearly 15 percent of these girls it is not a first birth (21, p. 4). Some 60 percent of these girls married by the time the baby was due; married or not, the majority of these young mothers kept their babies (21). In Texas, the number of teenagers marrying has increased at a rate of four times that of other Texans (2; 17, p. 4).
One of five babies born in Texas in 1976 had a teenage mother. The number of babies born to girls 14 and under in Texas has increased 64 percent in 10 years (34, pp. 68-69).

Parent's understanding of child development norms often govern their reaction to children (7, p. 23). V. deLissovoy states that adolescent parents tend to be impatient and intolerant of their children. Due to their lack of knowledge and experience with young children, adolescent parents were extremely frustrated in dealing with their children (7, p. 22).

From the earliest moments, young children need assurance that they are wanted and needed, and also that they will be cared for by people who love them (32, p. 11). Favorable relationships with parents will encourage the child to develop normally (17, p. 39). A child born to parents who are unprepared to care for the child faces an exceptionally high risk of suffering severe emotional and developmental problems. These infants are sometimes called the "born to fail" children (33, p. 13). A lack of understanding of developmental needs by parents may result in serious damage to the child. Poor physical and mental development may result from unfavorable environmental conditions shortly after birth (17, p. 39).

According to Hurlock, overprotective parents may inhibit motor development while over-anxious parents may
instill timidity in their children. Often parents with a lack of basic knowledge of developmental norms will push a child into a learning situation before he is ready (17, pp. 148-149).

In order for a child to make successful adjustments, emotions must be directed into acceptable patterns of expression. For a parent to help, he or she must be aware of the normal pattern of emotional development (17, pp. 184-187). Parents aware of developmental norms will be in a better position to evaluate their child's social behavior, and to attempt to make the home environment favorable for the child's social development (17, pp. 225-229).

Due to societal changes, today adolescents often do not receive the child care and parenting training in their homes. In the early 1800s, the average number of children per family was 7.2; in 1970, the average was 2.3 children; and today, the average number of children per family is 1.9. Children today have fewer siblings from whom to learn (18, 21, 24, 28). Historically in the United States, large nuclear and extended families offered opportunities for adolescents to be involved with young children. These opportunities became more rare as fewer non-parental relatives lived with the families and fewer offspring were born to families. Society has been increasingly segregated by age. Coupled with single-parent families and working mothers, these "depopulation of the family" statistics
indicated that more children are spending time in homes which are empty of people to look out for them (18, p. 7). Twenty-two percent of the 2.6 million children of working mothers were cared for in their homes by persons under sixteen years of age, presumably primarily older siblings (10, p. 260). Children in earlier times were exposed to many different views of child rearing by relatives and non-relatives such as live-in servants, boarders, and lodgers. This type of family life allowed for a better understanding of children's needs and formulation of child-rearing values by each individual (24). In recent years, fewer persons have learned how to rear children by observing their own parents or caring for younger children (28).

Older brothers and sisters often played a large role in the rearing of younger siblings (17). Several factors have been suggested as reasons for this--lack of parental involvement with children; lack of parental attention to the younger children; the need for parental substitutes in larger families, particularly those with a large age span between children; or the fact that both parents work full time. Typically, adolescents tended to be intolerant of the behavior of the younger siblings, and exhibited punitive behavior (7, 10).

Research has indicated that second borns used their older siblings as role models for parenting behavior as well as modeling after their parents (16). However, since
the current trends have been toward smaller families spaced more closely, adolescents have had fewer chances to care for younger brothers and sisters, thus decreasing parenting skills which can be learned informally at home.

A basic knowledge of child development, acquired during the school years can be beneficial and useful to those adolescents. Many of the current developmental needs of adolescents can be met through a study of child development. Research has indicated that the pre-teen and adolescent ages are an opportune time to involve students in experiences which will help them gain better insights into their own behavior and foster independent learning (22). The knowledge gained about child development can be applied to parenting, careers in child service, volunteer services, and some types of teenage employment; such as, baby-sitting, camp counseling, and serving as hospital aides (21, p. 7).

Adolescents are often involved in volunteerism, wishing to be helpful. They seek opportunities for working with others. Combined with a knowledge of child development, their skills, spontaneity, and energy can offer a great deal for working with young children (4). Helping someone else is a healthy way for the adolescent to grow, learn, and to move toward a greater independence. Learning about young children can be especially helpful to pre-teens and adolescents, as they strive to reach their own developmental goals (4, 28).
Currently, 33 percent of mothers of school-age children work outside the home. As more women begin working, more children have been left in some type of day care. In 1978, the United States Office of Education reported that one out of five children in the United States under the age of thirteen spent thirty hours or more per week in the care of someone other than their parents (11). Often the caregivers were not sufficiently trained to provide either safety or a conducive environment for a young child's development (37). Learning child development needs increased the capability of the care-giver (9, 32).

Child abuse is a chronic problem in Texas (33, p. 135) and in the nation. Some 60,000 cases are reported in the United States annually, and estimates have been made that for the next ten years 50,000 children will die and 30,000 more will be permanently injured due to child abuse (32, pp. 11-14). Though abusive parents are often emotionally disturbed or immature themselves (30, p. 269), the abusers are often parents who lack basic knowledge of child growth and development. Their frustration in dealing with their children is largely due to unreasonable expectations of their children. Since these parents are not aware of developmental norms, they are unable to accept the child's behavior (33, 136).

Parenting preparation deserves a place in the educational system of the United States (21, p. 5). However,
in spite of fewer opportunities to learn parenting skills at home, of secondary care-givers substituted for parental guidance, of the increase in the number of adolescent parents, and of the thousands of abused children, this type of education has traditionally received low priority in the school systems (21, p. 5). Rather than specifically focusing on child development and growth or parenting skills, classes were usually conducted in courses such as health, courses for pregnant teenagers, or general home economics, with child development being a very small part of the total curriculum. Within the courses, the greatest limitation in teaching child development was viewed as a lack of time, since most of these high school courses also included such topics as family communications, marriage, family planning, self-concept, child abuse, special children, child nutrition, and sibling relationships (20, 34, 38).

According to Byles, despite the fact that most high schools offered some type of family life or child development education, most adolescents did not learn parenting skills or gain basic knowledge of child development through school classes (1). Being directly involved with young children seemed to be one of the best sources of learning about child development (1). One such program, "Playschool" at White Plains High School in New York, allowed for one-to-one contact between adolescents and young children. The nursery school lab was adapted to the level of high school
students and served the dual purpose of allowing children to learn and have fun while high school students observed and worked with the children. The Playschool provided students with a first hand opportunity to observe physical, motor, intellectual, and social growth and development. Teenagers studied the needs of toddlers, developed skills in setting limits, and practiced using positive speech and actions to guide the children (3).

Several types of school programs were begun in the last several years. In addition to programs such as "Play-school" vocational education programs have been important in the area. However, home economics and child service career education have been ineffective in reaching the male adolescent. According to Kruger (21, p. 6), during the 1969-1970 school year, only 37,987 young men out of the United States were enrolled in a family relations class, 5,503 in child development, and less than 3,000 in courses concerning the care and guidance of children.

The Education for Parenthood program was begun in September of 1972 by the Office of Education and the Office of Child Development to encourage interest in parenting education. The program included instruction and field experiences for adolescents in the "Exploring Childhood" course. Sponsored by the National Institute of Mental Health, the course was developed by the Social Studies program of the Educational Development Center in Cambridge,
Massachusetts. In 1973, the Education for Parenthood pro-
gram was begun in 234 sites; by 1974, more than 800 courses
were being taught. The program was divided into three
modules and emphasized working with children, developmental
changes, and the family (20, 27, 28).

Working with young children prepared adolescents for
parenthood, assisted them in baby-sitting and sibling care
skills, and encouraged many to pursue the child-care career
field (2). The Exploring Childhood course offered an
opportunity for many adolescents to succeed for the first
time. While academically these adolescents may have failed,
many were babysitters and had been responsible for younger
siblings, and were able to communicate successfully with
young children.

Even at the college level, parenting education was not
viewed as a primary goal. In a study of thirty-two land
grant universities, 93 percent offered parenting education
as a part of the regular curriculum, but only 44 percent
offered parenting as a separate course. In these univer-
sities, few evening classes in parenting or child development
were offered (19).

Adolescents, then, are often not provided opportunities
to obtain knowledge of child development or to develop
parenting skills. However, the 4-H club program may offer
these opportunities. 4-H is the youth development program
of the Cooperative Extension Service (8, p. 1).
The basic function of the Cooperative Extension Service was established by the Smith-Lever Act of 1914. The Act states that the purpose of this organization is to "aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same" (6, 30). The purpose of the Texas Agricultural Extension Service is education (31, p. 1) with the overall goal to help people help themselves (26).

4-H is sponsored jointly by the Texas Agricultural Extension Service of the Texas A & M University System, the United States Department of Agriculture, and the local County Commissioners' Courts. Orientation and assistance with the total 4-H program is provided by County Extension Agents in each county (8, p. 2).

4-H is an educational organization designed to help youth establish goals and become productive, competent citizens (15, p. 3). 4-H is a program of live experiences and involvement; youth learning how to do jobs and make decisions that are important in life (5). 4-H participation influences the way boys and girls think, act, and feel (8, p. 15).

According to the National 4-H Council (15), more than 5.8 million boys and girls annually participate in 4-H clubs. Throughout the nation, there are 138,563 locally organized clubs. "4-H in Century III," national programming
guide for 4-H curriculum shows "Home and Family Resources" as one of the eight major components for 4-H programming in the coming years (12, 15).

The deficiencies in America's parenting skills could be alleviated by improving parenting education (21), and parenting education can be improved through the 4-H club program (36). Parenting education through 4-H offers many advantages: a youth-oriented program, designed to help members learn by doing; the opportunity for adolescents to understand some of their own developmental needs by understanding child growth and development; the opportunity for adolescents to become better equipped to deal with their own family situations and daily life; and the opportunity for adolescents to develop parenting skills (36).
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CHAPTER III

PROCEDURES FOR CONDUCTING THE STUDY

Selection of the Sample

Two hundred and fifteen students ages fourteen to seventeen years participated in the study. The adolescents lived in Parker and Tarrant counties of Texas, and were enrolled in public high school homemaking I and II classes at the time of the study. Fifteen students were excluded from the study because the students were older than seventeen years or had failed to provide the necessary demographic information. In Table I, the age and sex distribution of the subjects is presented.

TABLE I

AGE DISTRIBUTION OF THE ADOLESCENTS IN THE STUDY

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Boys (N)*</th>
<th>Girls (N)</th>
<th>Total (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fourteen years</td>
<td>1</td>
<td>22</td>
<td>23</td>
</tr>
<tr>
<td>Fifteen years</td>
<td>3</td>
<td>90</td>
<td>93</td>
</tr>
<tr>
<td>Sixteen years</td>
<td>2</td>
<td>59</td>
<td>61</td>
</tr>
<tr>
<td>Seventeen years</td>
<td>3</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>191</td>
<td>200</td>
</tr>
</tbody>
</table>

*(N) = Number
The principals of the seven high schools were contacted to explain the purpose of the study. Oral permission to conduct the study in each high school was granted by the principals and the home economics teachers.

The surveys, with introductory letters, were delivered to the home economics teachers in each high school (see Appendix I). Attached to the letter were instructions to be read to the participants of the study (see Appendix II).

Questionnaires

Harrison's questionnaire, entitled "Child Development Inventory for Adolescents" was used in collecting the data (1). The inventory assessed the adolescents' knowledge of child growth and development in the areas of physical, mental, social, and emotional growth (see Appendix II). The survey was administered to students at all seven high schools from January 15 to January 31, 1979.
CHAPTER BIBLIOGRAPHY

CHAPTER IV

ANALYSIS OF THE DATA

The data was compiled from the questionnaires of the 200 adolescents, including 9 boys and 191 girls. A completely randomized design was used as the research design for all research questions. The findings were analyzed and interpreted using t-tests and one-way analysis of variance. Overall significance was tested at the .05 level. The questionnaire was scored using a Likert scale. Individual scores were given to each participant in the area of physical, mental, social, and emotional development. Each area was given a possible score of seventy-five points. A total score for each participant was also obtained. The possible total score was 300.

Research question number one was, "Do 4-H members exhibit a higher level of knowledge concerning the physical growth of young children than their same-sex classmates of approximately the same age?" At the .05 level of significance, no significant differences were found. The mean score of the 4-H members was 56.05, while the mean score of the non-4-H members was 56.71 as shown in Table II.

Research question number two was, "Do 4-H members exhibit a higher level of knowledge concerning the mental
growth of young children than their same-sex classmates of approximately the same age?" Although no significant differences were found at the .05 level of significance, 4-H members scored slightly higher, with a mean score of 60.60. The mean score of the non-4-H members was 60.16, as shown in Table II.

**TABLE II**

**MEAN SCORES OF 4-H MEMBERS AND NON-4-H MEMBERS**

<table>
<thead>
<tr>
<th>Area of Development</th>
<th>4-H (N*=35)</th>
<th>Non-4-H (N=165)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Development</td>
<td>56.05</td>
<td>56.71</td>
</tr>
<tr>
<td>Mental Development</td>
<td>60.60</td>
<td>60.16</td>
</tr>
<tr>
<td>Social Development</td>
<td>51.65</td>
<td>54.12</td>
</tr>
<tr>
<td>Emotional Development</td>
<td>59.28</td>
<td>60.01</td>
</tr>
<tr>
<td>Total Score</td>
<td>227.60</td>
<td>231.02</td>
</tr>
</tbody>
</table>

*N=Number of participants.

Research question number three was, "Do 4-H members exhibit a higher level of knowledge concerning the social growth of young children than their same-sex classmates of approximately the same age?" The mean score of the 4-H members was 51.65; non-4-H members scored a mean score of 54.12. No significant differences were found at the .05 level of significance as shown in Table II.
Research question number four was, "Do 4-H members exhibit a higher level of knowledge concerning the emotional growth of young children than their same-sex classmates of approximately the same age?" Non-4-H members scored slightly higher, with a mean score of 60.01. 4-H members had a mean score of 59.28, as shown in Table II. No significant differences were found at the .05 level of significance.

Non-4-H members scored slightly higher on the total score, with a mean score of 231.02. 4-H members had a mean score of 227.60, as shown in Table II. No significant differences were found in total test scores at the .05 level.

Research question number five was, "Do 4-H members who have had experience in Family Life Education projects exhibit a higher level of knowledge concerning child growth and development than those members who have been involved in other types of projects?" The participants were divided into two categories: those 4-H members who had been involved in 4-H Family Life Education projects, and those 4-H members who had been involved in projects other than child development and family life. Mean scores for the 4-H members are presented in Table III.

Six 4-H members had been involved in 4-H Family Life Education projects, and twenty-nine members had been involved in other types of projects. Differences between the scores of the groups were not significant at the .05 level. However, those 4-H members with prior experience
in Family Life Education projects did have higher total mean scores and higher scores in the areas of physical and emotional development. Those 4-H members involved in other projects scored higher in the areas of mental and social development.

**TABLE III**

MEAN SCORES OF 4-H MEMBERS

<table>
<thead>
<tr>
<th>Area of Development</th>
<th>Family Life Projects (N*=6)</th>
<th>Other Projects (N=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Development</td>
<td>56.83</td>
<td>55.89</td>
</tr>
<tr>
<td>Mental Development</td>
<td>59.66</td>
<td>60.79</td>
</tr>
<tr>
<td>Social Development</td>
<td>51.00</td>
<td>51.79</td>
</tr>
<tr>
<td>Emotional Development</td>
<td>64.33</td>
<td>58.24</td>
</tr>
<tr>
<td>Total Scores</td>
<td>231.83</td>
<td>226.24</td>
</tr>
</tbody>
</table>

*N = Number of 4-H members.
CHAPTER V

SUMMARY, FINDINGS, AND RECOMMENDATIONS

Summary

The purpose of the study was to investigate the child development knowledge of 4-H club members and non-4-H club members in the areas of physical, mental, social, and emotional development. Two hundred high school students were surveyed in Parker and Tarrant counties, including thirty-five 4-H club members and 165 non-4-H members. The data obtained from the questionnaires were compiled and analyzed, using the T-tests and one-way analysis of variance.

Findings

The following findings were drawn from this study:

1. 4-H club members did not exhibit a significantly higher level of knowledge concerning the physical, mental, social, or emotional growth of young children than those same-age students who were not involved in the 4-H club program.

2. Those 4-H club members with experience in 4-H Family Life Education projects did not know significantly more about child development than those 4-H members with experiences in other projects.
Recommendations

This study was limited to students enrolled in homemaking classes. Possibly these students have been exposed to more information concerning child development than those students who have never enrolled in homemaking. For this reason, further research needs to be conducted which would compare the knowledge of child development of 4-H members to same-age group students with no background in homemaking.

Little research was found concerning the educational effects of the 4-H club program, particularly in the areas of child development and family life. Further research in this area could be valuable, particularly to the persons involved in developing curriculum for the 4-H club program. Extension personnel may need to develop Family Life Education projects which offer a greater challenge to 4-H members. More emphasis should be placed at the county level on conducting projects in Family Life Education. Research which involves more 4-H club members, from a larger geographic area, could also offer other insights into the educational effects of the 4-H club program on its members.
APPENDIX I

TO THE TEACHER:

Thank you for your willingness to help administer the Child Development Inventory for Adolescents. It should not take more than ten to twenty minutes of your classroom time. Attached is a copy of the standardized instructions to be read to the students.

Again, we appreciate your help.

Sincerely,

Cheryl Harrison
County Extension Agent
Tarrant County

Jean F. Anderson
County Extension Agent
Parker County
APPENDIX II

STUDENT INSTRUCTIONS

This is a questionnaire which will test your knowledge of infants and young children. It is voluntary, and there are no right and wrong answers. DO NOT PUT YOUR NAME ON THE QUESTIONNAIRE.

To complete the questionnaire:

Page 1--Please fill in the blanks and check all appropriate answers.

Page 2--Check the appropriate column. If a question
Page 3 is true, check "strongly agree;" if it is
Page 3 partially true, check "tend to agree;" if it is
Page 3 partially false, check "tend to disagree;"
Page 3 if it is false, check "strongly disagree;"
Page 3 if you do not know an answer, check "uncertain."

Please answer the questions on your own, and to the best of your ability. Remember:

--There are no right and wrong answers.

--This is voluntary, and will not affect your classroom grade or work in any way.

--Do not put your name on the questionnaire.

YOU MAY BEGIN
APPENDIX III

CHILD DEVELOPMENT INVENTORY FOR ADOLESCENTS

Date_________________________ Age__________________________

Years                    Months

Male____ Female____ High School____________________________

Place a check in front of the appropriate answers.

1. How many years have you been a member of 4-H? (If applicable)

   _____less than 1 year                _____4-5 years
   _____1-2 years                       _____5+ years
   _____3-4 years

2. Which 4-H experiences have you had?

   _____STEPS To Tomorrow (Child Development)
   _____TEPE (Teens Explore Parent Education)
   _____Y-E-S (Youth-Environment-Society)
   _____Foods                            _____Clothing

3. I am:

   _____an only child.
   _____a child in a small family (2-3 children).
   _____a child in a large family (4 or more children).

4. What is your position in your family?

   _____Oldest                  _____Youngest
   _____Middle                  _____Other (Specify)________________
5. Which classes have you taken (or are taking now) where you have had an opportunity to learn about child development?

- [ ] 7th grade Homemaking
- [ ] Homemaking I
- [ ] 8th grade Homemaking
- [ ] Homemaking II
- [ ] 9th grade Homemaking
- [ ] Other, Specify

For the information in this survey, "children" refers to people two to six years. "Babies" refers to people from birth to two years of age.
<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Tend to Agree</th>
<th>Uncertain</th>
<th>Tend to Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Children grow physically in similar ways.</td>
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<tr>
<td>2.</td>
<td>Children learn to sit before they stand.</td>
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<td>3.</td>
<td>Children learn to walk alone before they are able to pull themselves up to a standing position.</td>
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<td>4.</td>
<td>Babies are able to sit alone before they can hold their heads up.</td>
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<td>5.</td>
<td>Babies can hear and taste soon after birth.</td>
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<td>6.</td>
<td>Small muscles in children develop more rapidly than do the large muscles.</td>
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<td>7.</td>
<td>A two-year-old can build a tower of six or seven blocks and kick a large ball.</td>
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<td>8.</td>
<td>A two-year-old can cut with scissors and copy letters.</td>
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<td>9.</td>
<td>Proper nutrition and health care are important for normal physical development.</td>
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<td>10.</td>
<td>The newborn infant will grasp a finger when it touches his palm.</td>
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<td>11.</td>
<td>The majority of eighteen-month-old toddlers are successfully toilet trained.</td>
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</tbody>
</table>
PHYSICAL DEVELOPMENT

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Tend to Agree</th>
<th>Uncertain</th>
<th>Tend to Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>12. The average six-year-old has the body shape of the adult he will become.</td>
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<td>13. By the age of five or six years, the young child can run with relatively few falls.</td>
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<td>14. A baby usually cuts his/her first teeth between four and seven months of age.</td>
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<td>15. Most children are able to feed themselves with a spoon by the time they are one year old.</td>
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</table>
MENTAL DEVELOPMENT

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<thead>
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<tbody>
<tr>
<td>1. Babies and toddlers can learn through play.</td>
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<tr>
<td>2. Between one and four months of age an infant begins to show signs of curiosity.</td>
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<td>3. Babies do not need any toys before six to twelve months of age.</td>
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<td>4. Play helps a child learn about shapes, colors, size, and textures.</td>
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<td>5. Children under three years of age tend to play near each other but do not actually play with each other very much.</td>
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<td>6. When children reach four-five years of age, they begin to enjoy playing action games such as &quot;Farmer in the Dell.&quot;</td>
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<td>7. Two-year-olds are able to understand and play by rules.</td>
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<td>8. Toys often are classified as active, creative, dramatic, or social toys because of the skills children learn from them.</td>
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<td>9. Children's books which are appropriate for a one-year-old are available.</td>
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<td>10. Babies can communicate beginning at birth.</td>
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<tr>
<td>11. A child first learns to talk by hearing other people talk.</td>
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</tbody>
</table>
MENTAL DEVELOPMENT

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
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<th>Uncertain</th>
<th>Tend to Disagree</th>
<th>Strongly Disagree</th>
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</thead>
<tbody>
<tr>
<td>12. A child learn to talk by experimenting with nonsense syllables, such as &quot;da-da&quot; and &quot;gah-gah.&quot;</td>
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<td>13. Singing and repeating nursery rhymes help a child learn language.</td>
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<td>14. Some children do not talk very much because they do not hear others talk.</td>
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<td>15. The majority of twelve-month-old babies can say several sentences of three or more words.</td>
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## SOCIAL DEVELOPMENT

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<tbody>
<tr>
<td>1.</td>
<td>Children need to learn to get along with others.</td>
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<td>2.</td>
<td>Play helps a child learn to cooperate and share.</td>
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<td>3.</td>
<td>Babies and young children need someone to do everything for them.</td>
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<tr>
<td>4.</td>
<td>Children learn to get along with others by playing with other children.</td>
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<td>5.</td>
<td>Children like to visit other people, but they miss home if they are away too long.</td>
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<td>6.</td>
<td>Infants first show fear of strangers at around eight months of age.</td>
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<td>7.</td>
<td>Young children are mature enough to understand another person's point of view.</td>
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<td>8.</td>
<td>Children need experience with adults, older children and young children in learning how to make friends.</td>
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<td>9.</td>
<td>Young children can quickly learn to share.</td>
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<td>10.</td>
<td>To teach a child to share, you should force him/her to share toys when he/she is very young.</td>
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<tr>
<td>11.</td>
<td>Infants of nine to twelve months usually cry when their mother leaves them.</td>
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</table>
12. Young children express aggression more often verbally than physically.

13. Children who bite other children should be bitten back by an adult or the child who has been bitten to show them that it hurts.

14. The family is the main social influence on the young child during his first few years.

15. Babies will smile in response to a smile from another person at around one week of age.
EMOTIONAL DEVELOPMENT

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<tr>
<th></th>
<th>Strongly Agree</th>
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<tbody>
<tr>
<td>1. Feelings can prepare the body for action by increasing strength, energy, and endurance.</td>
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<td>2. Feelings of jealousy are not common for preschool children.</td>
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<td>3. Preschool children experience pleasure from activities with others.</td>
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<td>4. Children tend to act similar to their parents when expressing their feelings.</td>
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<td>5. Young children's fears should be taken seriously, because they are real to the child.</td>
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<td>6. Ignoring children's fears is the best way to cope with them.</td>
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<td>7. Extremely strict discipline may cause a child to be fearful and affect his decision making throughout life.</td>
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<td>8. Very little discipline may confuse a child because the child cannot tell how he is supposed to act.</td>
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<td>9. The less discipline a child has, the more independent the child will be.</td>
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<td>10. Preschool children generally express feelings of affection to people who are friendly to them.</td>
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<td>11. Sometimes an act, such as a temper tantrum, is mistaken for misbehavior when actually, it is a typical action of two-year-olds.</td>
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<tr>
<td>12.</td>
<td>Young children often express their feelings through facial expressions and body language instead of spoken language.</td>
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<td>13.</td>
<td>Toddlers often express their anger and frustration through temper tantrums.</td>
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<td>14.</td>
<td>Preschool children who have imaginary playmates are emotionally disturbed.</td>
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<td>15.</td>
<td>Children's self-concepts are based on what they believe significant people in their lives think of them.</td>
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</tbody>
</table>
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Books


Articles


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