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Effectiveness of the 4-H Program as Perceived by Parents of 4-H Participants

Abstract

The study reported here examined the effectiveness of 4-H program as perceived by parents of program participants. Descriptive-correlational design was employed, with data collected using a mail survey. Parents perceived 4-H as an effective organization in teaching life skills to youth. Significant relationships were found between parents' skills and skills youth learn in 4-H. Two variables—skills and belonging—explained 28.8% of the variance in youth life skills, suggesting that when parents view that their child's participation in 4-H is important and help demonstrate importance of life skills, then youth learn needed life skills—communications, decision making, and goal setting.

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Introduction

Successful 4-H youth experiences depend greatly upon parental participation and involvement with their children in 4-H program activities. Previous studies reported positive parental perceptions of youth involvement in 4-H and documented contributing roles of parents in their children's projects and programs (Boleman, Cummings, & Briers, 2004; Gregoire, 2004; Ferrari, Hogue, & Scheer, 2004; Gill, Ewing, & Bruce, 2010; Singletary, Smith, & Evans, 2006). Consensus from these studies suggested that parents were a vital part of 4-H programs because their participation ensured optimal growth experiences for their children, provided assistance with 4-H projects, and strengthened social networks between parents and youth in the community.

Boleman, Cummings, and Briers (2004) described the perceptions of parents regarding the participation of their children in the 4-H beef program and specifically noted the development of several important life skills: responsibility, self-discipline, self-motivation, self-esteem, decision-

making, and an increased knowledge of the livestock industry.

Ferrari, Hogue, and Scheer (2004) studied parent perceptions of life skills development in the 4-H Cloverbud program. Parents attributed an increase in the following life skills to involvement in the Cloverbud program: social interaction, learning to learn, self-confidence, self-care (safety and independence), and self-direction. Parents also described benefits from 4-H for themselves and their families. Parents in the Cloverbud program stated that they enjoyed the socialization with other parents during 4-H activities. They also noted their appreciation for healthy parent-child interactions through child-centered activities (Ferrari, Hogue, & Scheer, 2004). Parents valued the opportunities that 4-H provided, allowing for engagement in family activities.

4-H programs benefit from the roles that parents play. Many clubs rely on parents as resources for projects, and parents frequently act as 4-H volunteer leaders. Gill, Ewing, and Bruce (2010) found that parents had the greatest influence on 4-H member enrollment and participation; and, according to Scott, Clark and Reagan (1990), parental encouragement was a highly significant factor influencing project completion.

Parents provide valuable perspectives regarding the development of life skills in their children through involvement in 4-H. Parent assessments can identify critical interests and concerns regarding participation in 4-H programs. Further, parent assessments will determine if the program is meeting the needs of parents and children, and prompt action to improve the program if necessary.

Purpose and Objectives

The primary purpose of the study reported here was to assess the effectiveness of the Pennsylvania 4-H program as perceived by parents of 4-H participants. The following objectives guided the study:

1. Describe the demographic profile of parents;
2. Determine effectiveness of 4-H program as perceived by parents;
3. Determine parents' perceptions of what their children are learning in 4-H programs;
4. Assess parents' skill levels that could be used in the 4-H program; and
5. Determine contribution of perceived parents' skills on life skills youth learn in 4-H

Methods and Procedures

Population, Sample, and Study Design

The population for the study consisted of all parents in the Pennsylvania 4-H program ($N=22,643$). The frame for the study was obtained from the list maintained in the Extension director's office. A random sample of 368 parents were selected and stratified by six Pennsylvania Extension regions. This sample size reflects a 5% sampling error. The study employed a descriptive-correlational research design with a mail survey.

Instrumentation, Data Collection, and Analysis

A four-section mail survey instrument was developed to collect data. The instrument was developed based on a study by Singletary, Smith, and Evans (2006). Section one contained 15 statements relative to effectiveness of 4-H program, measured on a five-point Likert scale that ranged from 1=Very ineffective to 5=Very effective. Section two contained 15 statements relative to life skills youth learned in 4-H, measured on five-point Likert scale (1=very little to 5= very much with a don't know option). Section three of the instrument contained 15 statements relative to parental skills that could be used in 4-H, measured on five-point scale ranging from 1= I need a lot of improvement at this to 5 = I am very good at this. The final section of the instrument elicited demographic information such as gender, residence, education, age, and other program characteristics.

The instrument was validated for content and face validity by a panel of experts consisting of 4-H faculty and staff, program leaders, Extension educators, and a graduate student. The study was approved by the Institutional Review Board of the Pennsylvania State University. A post-hoc reliability analysis was conducted to estimate the reliability of the instrument. Cronbach's alpha for sections one, two, and three of the instrument were found to be acceptable and in similar range to those reported by Singletary, Smith, and Evans (2006). Reliability coefficients ranged from a low of .84 to a high of .91 for the three sections of the instrument described above.

Dillman's total design method was used to collect data. (Dillman, 2000). An initial pre-notification card was sent to all 368 parents, followed by an instrument, and another copy of the instrument to those who did not respond to the initial mailing. Another post card follow-up was also conducted to enhance response. After two follow-ups and a post card, a total of 152 parents responded for a return rate of 41%. Complete and usable data were provided by 142 parents, for a response rate of 38.5%. Non-response bias was addressed by comparing early, late, and non-respondents as per procedures suggested by Miller and Smith (1983). No significant differences were found among the three groups on the items in sections one, two, and three of the instrument. Therefore, it was determined that the findings are generalizable to the population of parents of 4-H participants. Data were analyzed using descriptive statistics. Stepwise regression was used to identify parents' perspectives on life skills youth learn in 4-H.

Findings

Objective One—Demographic Profile

Eighty percent of the parents were female. Twenty-five percent had a bachelor's degree, 30% had completed some college, while another 30% had completed high school. Over 65% were in the age group of 41 to 50 years, 21% under 40 years, and 12% in the age group of 51-60 years. Forty-one percent were 4-H members when they were young. Approximately 55% of the parents resided in rural areas, 25% lived on the farm, and the remaining 20% lived in towns, cities, and suburbs.

Objective Two—4-H Program Effectiveness

Parents were asked to indicate, on a five-point scale (1=very ineffective, 5= very effective), the

perceived effectiveness of the 4-H program relative to 15 statements. Results are shown in Table 1. Parents perceived that the 4-H program was most effective in: providing a safe place for learning and growing (M=4.44), positively influencing family life (M=4.33), using 4-H competitive events as teaching tools for their children (M=4.28), using the county newsletter as a way to learn about 4-H and events (M=4.26), fulfilling a variety of subject matter interests (M=4.23), and involving youth in the community (M=4.07). The lowest score was for the statement, attracting children from diverse cultural and ethnic backgrounds, with a mean value of 3.45. Overall, parents viewed that Pennsylvania 4-H program was effective in reaching its goals.

Table 1.
Parents' Perceptions of the Effectiveness of 4-H Program

Statement	Mean*	SD
4-H is _____ in providing a safe place for learning and growing	4.44	0.64
4-H is _____ in making a positive influence in my family's life	4.33	0.73
4-H competition events are _____ in teaching tools for my children	4.28	0.72
4-H county newsletters are _____ ways to learn about 4-H and events	4.26	0.83
The 4-H projects offered are _____ in fulfilling a variety of subject matter interests	4.23	0.58
4-H county newsletters are _____ ways to advertise/market upcoming events	4.19	0.78
4-H activities are _____ in involving youth in the community	4.07	0.89
The quality of adult leadership skills is _____ in achieving a successful 4-H program	4.05	0.74
Project materials my child received are _____ in helping him/her to gain knowledge and skills related to the project	3.89	0.78
Volunteer leader trainings are _____ in providing the skills needed to lead projects	3.80	0.77
Alternative 4-H projects, such as robotics are _____ in teaching my child valuable skills	3.75	0.78
The Pennsylvania 4-H website is a _____ tool to gather information about the program and events that [state] has to offer	3.74	0.78
4-H record book-keeping is _____ in teaching valuable life skills	3.69	0.83
The process of selecting volunteers is _____ in selecting	3.63	0.80

competent volunteers		
4-H program is ____ in attracting children from diverse cultural and ethnic backgrounds	3.45	0.91
*Mean computed on a scale: 1=Very ineffective to 5=Very effective		

Objective Three—Parents Perceptions of what their Children are Learning in 4-H

Parents were asked to indicate, on a five-point scale (1=very little, 5=very much), the extent to which their children are learning life skills in 4-H. Ratings generally ranged from "much" to "very much." Life skills receiving the highest ratings were: learning about their 4-H projects (M=4.33), achieving greater self-confidence around others (M=4.25), acquiring greater self-esteem (M=4.20), learning self-responsibility (M=4.20), setting and reaching goals (M=4.17), and communication skills (M=4.15). The statement, skills useful in dealing with conflicts, was perceived as "neutral" (M=3.45) by parents (Table 2).

Table 2.
Parents' Perceptions of Life Skills Learned by Children
Participating in 4-H Program

Statement	Mean*	SD
<i>As a result of participating in 4-H, youth are learning:</i>		
skills useful in dealing with conflicts	3.54	0.90
communication skills	4.15	0.81
relationship-building skills	4.11	0.75
to acquire greater self-esteem	4.20	0.76
organizational skills	3.92	0.75
decision-making ability	3.93	0.80
to achieve greater self-confidence around others	4.25	0.71
public-speaking skills	4.01	0.88
skills to lead peers	3.93	0.88
about future career choices	3.67	0.95
self-responsibility	4.20	0.73
to trust others and be trustworthy	3.93	0.86
about the project(s) in which s/he participates	4.33	0.60

to set and reach goals	4.17	0.73
to value service to the community	4.05	0.85
*Mean computed on a scale: 1=Very little to 5=Very much		

Objective Four—Self-perceived Parent Skills

Table 3 depicts the self-perceived parental skills. The 15 parental skills were grouped into six subscales based on Singletary, Smith, & Evans' (2006) study. Parents perceived themselves as "good to very good" in teaching competencies relative to "supportive relationships" (mean scores ranged from 3.56 to 3.93), followed by "belonging" (mean scores ranged from 3.90 to 3.93), "safety" (mean scores ranged from 3.60 to 3.77), "providing appropriate structure" (3.54), "opportunities for skill development" (3.61), and mattering (3.72). Overall, parents perceived that they possess "good skills" that could be used in 4-H program (Table 3).

Table 3.
Self-Perceived Parent Skills

Statement	Mean*	SD
<i>How good do you think you are at:</i>		
Safety(3)		
keeping youth from hurting each others' feelings	3.72	0.77
keeping youth from bullying each other	3.77	0.81
managing conflict between youth	3.60	0.80
Relationship(3)		
listening to youth	3.93	0.75
understanding a "youth" point of view	3.83	0.77
relating well to youth from different cultures/backgrounds	3.57	0.93
Belonging(2)		
helping youth to feel like they belong to a part of a special group	3.90	0.76
helping youth to feel they are an important part of the 4-H program	3.93	0.72
Skill (5)		
demonstrating activities that are designed to help other youth learn life skills such as healthy life-styles	3.66	0.80

demonstrating activities that are designed to help other youth learn life skills such as goal setting	3.59	0.83
demonstrating activities that are designed to help other youth learn life skills such as decision making	3.61	0.84
demonstrating activities designed to help other youth learn social skills such as relationship building	3.56	0.81
demonstrating activities that are designed to help other youth learn social skills such as communication	3.56	0.86
Mattering (1)		
encouraging youth to take on leadership roles	3.72	0.80
Structure (1)		
making sure youth are occupied during 4-H meetings & activities	3.54	0.81
*Mean computed on a scale: 1=I need a lot of improvement to 5=I am very good at this		

Objective Five—Contribution of Perceived Parents' Skills on Life Skills Youth Learn in 4-H

A stepwise regression analysis was conducted to determine the contribution of perceived parents' skills on the life skills youth learn in 4-H program. Stepwise regression allows for including all independent variables that are statistically significant and eliminating variables that are not significant. The dependent variable (15 item youth life skills) was regressed on the independent variables (15 item parent skills grouped into six subscales). Significant positive relationships existed between all six perceived parents skills and life skills youth learn in 4-H. Relationships were highest for: skill ($r=.517$), belonging ($r=.393$), and mattering ($r=.360$), followed by structure ($r=.370$), safety ($r=.349$), and relationship ($r=.316$). Although significant, positive correlations existed between the seven variables, none of the intercorrelations were high ($r > .70$), and as such multicollinearity was not a problem. See Table 4.

Table 4.
Intercorrelations Between Self-perceived Parental Skills and Youth Life skills

Variables	Safety	Relation	Belonging	Skills	Mattering	Structure	Youth Life Skills
Safety	-	.526*	.575*	.587*	.508*	.557*	.349*
Relation		-	.620*	.487*	.431*	.453*	.316*

Belonging			-	.519*	.416*	.561*	.393*
Skills				-	.598*	.579*	.517*
Mattering					-	.530*	.360*
Structure						-	.370*
Youth life skills (DV)							-
*p < .001							

The first variable to enter the regression equation was skills (B=.428, t (140) = 45.114, p < .001), followed by belonging (B=.170, t (139) = 2.032, p < .05). These two variables explained 28.8% of the total variance (adjusted R=.278) in youth life skills. See Table 5.

Table 5.

Summary Results of Stepwise Regression Analysis of Parents' Skills Contributing to Youth Life Skills Development

Variable	Multiple R	R2	Adjusted R2	R2 Change	Final Beta Step	F value
Skills	.517	.267	.262	.267	.428	50.97*
Belonging	.537	.288	.278	.021	.170	28.12*
*p < .001						

Conclusions and Recommendations

Parents of Pennsylvania 4-H youth perceived that 4-H programs were effective in 1) providing a safe place for their kids to learn and grow, 2) offering a variety of subject matter for the development of valuable life skills, and 3) making a positive influence on their family life. However, parents perceived that Pennsylvania program was somewhat ineffective in 1) attracting diverse children from various ethnic backgrounds and 2) marketing and advertising 4-H programs. These findings mirror the conclusions of Singletary, Smith, and Evans' (2006) study of parents in Nevada.

Parents perceived that their children learned valuable skills through participation in 4-H programs. The valuable skills identified by parents included: self-confidence, self-esteem, communications skills, and relationship building skills.

Parents also perceived that 4-H programs were "good" in teaching life skills to youth. The areas indicated as "good" included: helping youth to feel important, listening to youth, understanding youth points of view, keeping youth from hurting each other, and encouraging youth to take leadership roles. However, parents perceived that they required assistance in demonstrating activities for relationship building, conflict management, and social and decision-making skills.

Regression analysis revealed that two items—skills and belonging—explained 28.8% of the variance in youth life skills. This suggests that youth learn life skills relative to communication, decision-making, goal setting, and relationship building as a result of parents making them feel comfortable and welcome in 4-H program, and subsequently suggests that parents of 4-H participants in Pennsylvania are competent in teaching life skills to youth. Ultimately, 4-H programs in Pennsylvania can use parents as resources when conducting 4-H program activities and events.

Parents described positive qualities of Pennsylvania 4-H. Goal achievement, building life skills, and youth development were noted. In addition, parents possess "good" ability to teach life skills to youth in 4-H. Parents noted that 4-H should enhance efforts to attract children from diverse cultural and ethnic backgrounds to reflect the changing American demographic. Based on the findings of the study, the following recommendations are offered for 4-H programming in Pennsylvania, for Extension administration, and for further research.

For 4-H Programming

Findings of the study should be shared with parents and children in order to promote effective teaching of youth life skills. Opportunities for training should be provided in areas that predict youth life skills—relationship building, goal setting, communication, decision-making, and belonging. Further, training and/or information should be offered to parents on topics such as conflict resolution, future career choices, etc.

For Extension Administration

A comprehensive training program should be developed in order to meet the needs of 4-H parents. This comprehensive training program should focus on aspects identified by parents as needing improvement. For example, provide training relative to life skills, communications, conflict resolution, and information relative to understanding cultural and ethnic backgrounds. In addition, resources should be allocated for recruiting, training and rewarding parents.

For Further Research

The study reported here should be replicated using Extension educators, volunteer leaders, and youth to identify convergence/divergence in their perceptions of youth life skills. Such a study would help identify critical areas of need for training volunteer leaders, Extension educators, and parents. Subsequent studies could aid in offering common training programs for all three groups, thereby saving time, money, and resources. This is very important in a time when Extension has come under intense scrutiny due to budget shortfalls and other issues affecting higher education.

Periodic review of 4-H projects should occur to determine specific training needs of parents. Development of a 4-H project matrix would identify youth competencies in project areas and uncover gaps to provide training for parents and Extension educators.

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