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The Motivation for and Developmental Benefits of Youth Participation in County 4-H Fairs: A Pilot Study

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The Motivation for and Developmental Benefits of Youth Participation in County 4-H Fairs: A Pilot Study

Abstract

The county 4-H fair is a way for 4-H youth to showcase their project work and receive recognition for their efforts, but it can also provide important opportunities for positive youth development. The study reported here sought to determine motivation for participating in county fair and the impact of fair on development outcomes. Results revealed that "having fun" was the biggest participation motivator. There were few significant differences in motivation for fair participation that were found between youth who participated in the market animal projects and those who did not. Analysis revealed that fair participation contributes to youth development outcomes.

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Introduction and Review of Literature

For most 4-H agents, summer means one thing--FAIR! This long-standing tradition in many 4-H programs consumes a great deal of time and energy, and sometimes leaves agents wondering if their time would be better spent doing other youth development programming. Traditionally, the county 4-H fair is viewed as a way for 4-H youth to showcase their project work, receive recognition for their efforts, and develop leadership and teamwork skills (Diem & Rothenburger, 2001), but the fair can also provide important opportunities for positive youth development.

Two of the main goals of the 4-H program are to help build life skills and increase developmental outcomes in youth. Hendricks (1996) developed a comprehensive framework of the different life skills that 4-H programs help youth to develop. This framework is one of the main foundations for describing the effect of 4-H programming to date.

Recently, however, there has been a more in-depth analysis of the developmental benefits of positive youth development programs that allows us to describe the effect of 4-H programs beyond life skill development. Roth (2004) outlines the benefits of youth development programs as an

increase in levels of confidence, caring, connection, character, and competence (often referred to as the five "Cs" of positive youth development). Lerner, Dowling, and Anderson (2003) call the 5 "Cs" "functionally valued behaviors" and propose that attaining these outcomes increases a young person's thriving, which in turn leads to positive development through to adulthood. One of the identifiers of positive adulthood is the degree to which a person is a contributing member to self, family, community, and society.

Thus, an additional "C" developmental outcome has been conceptualized as "contribution" (Pittman, Irby, & Ferber, 2001).

In 4-H youth development programs, life skill and developmental outcomes are accomplished through non-formal educational opportunities (Russell, 2001) that take place in settings that provide opportunities for belonging, mastery, generosity, and belonging (Kress, 2004). Although unique in structure, the county 4-H fair fulfills these programmatic requirements and provides an important venue for youth development. Despite this recognition, very little research evidence has been gathered to support the effectiveness of fairs.

The purpose of the study reported here was to determine the impact of fair on youth development outcomes. In addition, the study looked at the motivation of youth for participating in county fair. If fair is an effective venue for youth development, then a clearer understanding of why youth choose to participate in fair can help with future programming efforts.

Methodology

The study took place in two adjacent counties in the summer of 2004. These sites were chosen because the 4-H agents in the counties were interested in assessing the impact of county fair participation and agreed to serve as pilot counties for a potential future statewide evaluation of county fair participation.

Participants

Intermediate and senior 4-H members in both counties ($N = 718$; 332 from one county and 386 from the other) who signed up to participate in their 2004 county fair were selected for participation in the study. Responses were obtained from 199 participants, for a 28% overall return rate (31% from one county and 25% from the other). Twenty-nine percent of the respondents were boys, and 71% were girls, which is approximately the gender distribution of 4-H members in the two counties and statewide. Age of the respondents ranged from 12 to 18.

Instruments

A questionnaire was developed specifically for the study. In addition to basic demographic information, including county fair participation, the instrument contained a set of questions about motivations for participation in fair. For these questions, respondents were asked to rate how important each item was to their participation in fair. The ratings were made on a five-point Guttman scale, with a rating of "1" indicating "not important" and a rating of "5" indicating "extremely important." Internal reliability (Cronbach's alpha) for this set of items was .80.

The survey also included six scales designed to measure specific developmental outcomes. The Rosenberg Self-Esteem Scale (Rosenberg, 1989) contains 10 items. Respondents were prompted to respond to each of the 10 statements using a 4-point Likert scale indicating their level of agreement or disagreement with each of the statements (Strongly disagree [1], disagree [2], agree [3], and strongly agree [4]).

The Proactive Coping Scale (Greenglass, Schwarzer, & Taubert, 1999) contains 14 items. Respondents are prompted to respond to each of the 14 statements using a 4-point Guttman scale indicating their level of agreement or disagreement with each of the statements (not true at all [1], barely true [2], somewhat true [3], and completely true [4]).

In addition to the established scales, four scales were created to measure four of the "C" developmental outcomes identified by Roth (2004). Items for the scales were developed by the first author in consultation with seven youth development practitioners who provided refinement and content validation (Carmines & Zeller, 1991). The scales were pilot tested in a previous study and the results from the pilot suggest that each scale possesses good psychometric properties, including high internal reliability, face and content validity, and factor structure (Arnold & Meinhold, 2004).

The *character* scale is composed of nine items that assess the positive values and integrity of youth. Two of the items are reverse-scored. The *connection* scale is composed of nine items that assess the feelings of connection to peers, family, teachers, and their community. Two of the items are reverse-scored. The *caring* scale is composed of eight items that address the feelings and emotions youth have towards others, including friends, family, and "others." Two of the items are reverse-scored.

Finally, the *contribution* scale is composed of seven items and assesses the level of value an individual places on personal, familial, and civic contribution. One of the items is reversed-scored

for this scale. Youth are prompted to respond to each statement using a four-point Likert scale indicating their level of agreement or disagreement with each of the statements (Strongly disagree [1], disagree [2], agree [3], and strongly agree [4]).

Internal reliability for each of the scales was assessed using Cronbach's alpha (Cronbach, 1971). Reliability coefficients were: .87 (Rosenberg Self-Esteem Scale), .81 (Proactive Coping Scale), .85 (Character), .77 (Connection), .72 (Caring), and .79 (Contribution).

Method

4-H Agents in each of the counties generated lists of county fair participants and forwarded them to the state 4-H office. A letter of informed consent and the youth questionnaire was sent to the parents of the fair participants directly from the state 4-H office. Following a modified method proposed by Dillman (1999) a follow-up post card was sent in 2 weeks, and again in 4 weeks, to youth who had not responded to the survey. Surveys were returned directly to the state 4-H office for data entry and analysis.

Data Analysis

Data were analyzed in two ways. First, mean ratings were calculated to determine motivations for participating in county fair. Second, regression analyses were conducted to understand the effect of fair participation on each of the developmental outcomes.

Results

Results of the study revealed that "having fun" was the biggest motivator for fair participation ($M = 4.72$ on a five-point scale). Achieving goals, spending time with friends, and teamwork were other top motivators. Table 1 presents the range and mean scores for each item related to motivation.

Table 1.
Summary of Motivating Factors for Participating in County 4-H Fair

Motivating Factor	N	Min.	Max.	M	SD
Having fun	197	1	5	4.72	0.65
Achieving goals	199	1	5	4.36	0.89
Spending time with friends	196	1	5	4.23	0.97
Teamwork	198	1	5	4.14	0.92
Challenging self to try new things	196	1	5	4.11	0.99
Building self-confidence	199	1	5	3.96	1.07
Showing training of animals to public	189	1	5	3.87	1.15
Demonstrating skills to the public	198	1	5	3.66	1.10
Working with younger youth	199	1	5	3.64	1.07
Receiving recognition	198	1	5	3.52	1.13
Competition	199	1	5	3.36	1.26
Selling market animal	181	1	5	3.27	1.67
Increasing chances of winning a county medal	196	1	5	3.05	1.25
Fair premiums	173	1	5	2.98	1.39
Qualifying for State Fair	195	1	5	2.97	1.41
Making a presentation	192	1	5	2.81	1.24
<i>Note.</i> Participants were given scale 1 = not important 2 = somewhat important 3 = 4 = somewhat of 5 = extremely important.					

A perennial question about motivation for participating in county fair has to do with the market animal project. There has been some speculation that one of the primary reasons youth want to participate in fair is because of the opportunity to sell a market animal at the 4-H auction. Animals sold at the auction typically receive a premium price, and the 4-H member can make a significant profit on the sale.

To understand this motivational dynamic, an ANOVA for members who participated in the market animal project ($n = 103$) and those who did not ($n = 94$) was conducted. There were only two significant differences between the two groups. "Selling my market animal" was rated significantly higher as a motivator, and "qualifying for state fair" was rated significantly lower by those in the market animal project (Table 2).

Table 2.
Analysis of Variance for Market Animal Participation on Motivation

Motivating Factor		N	Mean	df	F
Selling market animal	Did not participate in market animal	76	1.89	1	181.89***
	Did participated in market animal	103	4.29		
Qualifying for state fair	Did not participate in market animal	93	3.20	1	4.95**
	Did participated in market animal	100	2.76		

Note: * $p < .05$. ** $p < .01$. *** $p < .001$.

These results are not surprising because only members with market animal projects would be motivated by the opportunity to sell an animal, and because market animals sell at the auction, they are not available to go on to the state fair competition. What is significant is that, overall, having a market project was rated relatively low on the list of motivational factors for both groups, indicating that there are more important motivators for participating in the county fair.

Regression analysis was used to examine the effect of fair participation on the developmental outcomes of self-esteem, proactive coping, character, caring, connection, and contribution. The fair participation score was calculating the sum score of all the projects the member exhibited at the fair. It is important to note that in doing so, a quantitative value was placed on fair participation in that those who participated in more projects received a higher score than those who participated in fewer projects. For the purposes of the study then, there is an assumption that greater participation may lead to greater levels of developmental outcomes.

The analyses revealed that increased levels of fair participation had a significant effect on participants' character, contribution, and caring scores. No significant effects were found for self-esteem, proactive coping, or connection. Tables 3 through 8 present the summary results of the regression analyses.

Table 3.
Regression Analysis Summarizing Effect of Fair Participation on Character (N = 186)

	B	SE B	β
(Constant)	30.74	0.43	
Level of Fair Participation	0.26	0.13	0.14*
R^2		.02	

Note. Character ($M = 31.42$). Fair Participation score was calculated by summing scores on all the projects participants exhibited at the fair.
* $p < .05$. ** $p < .01$. *** $p < .001$

Table 4.
Regression Analysis Summarizing Fair Participation on Contribution (N = 177)

	B	SE B	β
(Constant)	23.35	0.42	
Level of Fair Participation	0.38	0.13	0.22**
R^2		.05	

Note. Contribution ($M = 24.33$). Fair Participation score was calculated by summing scores on all the projects participants exhibited at the fair.
* $p < .05$. ** $p < .01$. *** $p < .001$

Table 5.
Regression Analysis Summarizing Fair Participation on Caring (N = 186)

	B	SE B	β
(Constant)	26.56	0.41	
Level of Fair Participation	0.37	0.14	0.19**

R^2		.04	
<i>Note.</i> Caring ($M = 27.42$). Fair Participation score was calculated by summing scores on all projects participants exhibited at the fair. * $p < .05$. ** $p < .01$. *** $p < .001$			

Table 6.

Regression Analysis Summarizing Fair Participation on Self-Esteem (N = 185)

	B	SE B	β
(Constant)	31.95	0.56	
Level of Fair Participation	0.26	0.17	0.11
R^2		.01	
<i>Note.</i> Self-Esteem ($M = 32.64$). Fair Participation score was calculated by summing scores on all the projects participants exhibited at the fair. * $p < .05$. ** $p < .01$. *** $p < .001$			

Table 7.

Regression Analysis Summarizing Fair Participation on Proactive Coping (N = 180)

	B	SE B	β
(Constant)	43.44	0.67	
Level of Fair Participation	0.17	0.22	0.06
R^2		.00	
<i>Note.</i> Proactive Coping ($M = 43.88$). Fair Participation score was calculated by summing scores on all the projects participants exhibited at the fair. * $p < .05$. ** $p < .01$. *** $p < .001$			

Table 8.

Regression Analysis Summarizing Fair Participation on Connection (N = 181)

	B	SE B	β
(Constant)	29.40	0.41	
Level of Fair Participation	0.24	0.13	0.13
R^2		.02	
<i>Note.</i> Connection ($M = 30.01$). Level of Fair Participation was calculated by summing scores on all the projects participants exhibited at the fair. * $p < .05$. ** $p < .01$. *** $p < .001$			

Discussion and Future Directions

According to the results, "having fun," "achieving goals," "spending time with friends," and "teamwork," were the highest rated motivators for participation in 4-H fair. This fits our own observations that the camaraderie shared among participants, the interaction with others, and having opportunities to meet members' goals are all contributing factors to why youth participate in 4-H youth fairs.

Surprisingly, having an opportunity to sell a market animal in the auction was not one of the highest motivators for participation in the county fair. Historically, there has been a tendency to believe that the auction is a driving force for youth participation in fair.

Finally, regression analysis revealed that participation in 4-H fair had a significant positive effect on participants' levels of caring, contribution, and character. These results support the conclusion that participation in county 4-H fair does contribute to developmental outcomes in youth.

In conclusion, the one essential ingredient to having a strong participation in youth county fairs has been, and will always be, "having fun!" Research shows that people learn more when they are having fun, and 4-H youth fairs are no exception. The study reported here showed that in addition to providing fun, county 4-H fair contributes to the positive development of youth. Therefore the question should not be, "how do 4-H staff members get out of doing 4-H fair?" but rather, "how can we improve the fair experience to increase its impact on developmental outcomes in youth?"

One way this can be accomplished is by paying better attention to educational design when planning for fair. In addition to the important site, personnel, and set-up details that need to be

planned, developing a program logic model for fair that articulates the connection between fair activities and intended developmental outcomes will greatly increase the chances of fair being more than a "fun" event; it will also be an intentional educational experience.

Logic models help educators see the program theory of action, and often highlight the important links between what is done (in the case the event of fair) and the result that happens (in this case increasing developmental outcomes) (Arnold, 2002). Taking the educational side of fair more seriously through the use of program planning can greatly increase the impact of the fair experience on developmental outcomes in youth.

Looking in that same direction, it is important to recognize that the fair experience is something many youth look forward to all year. Fair participation offers fun educational opportunities to youth whether they are active in a single event or a handful of activities. Future exploration of the fair experience and level of participation can increase 4-H Agents understanding of the educational, social, and emotional impact of county fair as well as help to answer questions that focus on the increased levels of responsibility associated with participation in more than a few county fair activities.

It is important to further discuss where this project falls short in offering a deeper understanding of the population identified, particularly to help with future exploration in this area. We identify that 28% of the original population responded about their county fair experience. Even with a consistent nudging system in place, there was still a reduced number of surveys returned. In future projects, a different or more effective nudging approach could be applied or an alternate method of survey distribution and collection all together. This could mean talking with youth during their fair experience, rather than waiting and mailing surveys days after the event. Either way, a larger number of participants can offer a more comprehensive picture of the county fair experience.

As for survey construction, four of the scales used to identify "C" outcomes (character, connection, caring, and contribution) had previously been piloted but are not yet published (Arnold & Meinhold, 2004). As authors we felt it was beneficial to the current project to utilize the four additional scales, because we felt it would offer more knowledge about the influence of county fair on these individual outcomes. We also felt confident in the evidence based process taken by the first author to assure each scale possessed good psychometric properties, including high internal reliability, face and content validity, and factor structure.

County fair participation is clearly an influential and important part of life for the young people who participate. As 4-H agents and researchers, we see the value in not only recognizing the "fun" that is occurring at fair, but gaining a deeper understanding of what youth are gaining through the educational experiences offered through county fair.

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