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Fun and Friendship in the Natural World: The Impact of Oregon 4-H Residential Camping Programs on Girl and Boy Campers

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Abstract

This article presents the results of a multi-site evaluation of Oregon's 4-H Camps. The evaluation assessed 3 main areas: 1) personal growth, 2) life skill development, and 3) camper satisfaction. Questionnaires were administered at the end of each camp, with the data aggregated and analyzed across camps. Results revealed significant changes in personal growth and the development of selected life skills. Results also indicated that the campers enjoyed camp and their camp counselors. The results are confirming of what we know about the impact of camp and are important for sustaining investments currently made in camp programs.

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Introduction

Each summer, 4-H youth across the country pack their bags and head off to summer camp. Spending time with friends old and new, living and learning in a natural setting, singing songs and playing games, hiking, swimming, and campfires are what camp is all about. The American Camping Association defines residential camps as an experience consisting of a minimum of 4 nights where the camp staff is responsible for the campers 24 hours a day (American Camping Association, 1998). Residential camps are comprised of three interrelated attributes: the outdoors, education, and community (Slatter, 1984). These attributes combine to create the camp experience.

While all 4-H programs are designed to enhance the development of important life skills in youth (Hendricks, 1996), 4-H residential camping allows youth to experience this growth while living in a natural, communal setting that provides abundant opportunities for the development of knowledge, independence, responsibility, self-esteem, self-efficacy, and teamwork (Garst & Bruce, 2003; Powell, 2003). Campers also learn about nature and the outdoors, often returning from camp with a wider awareness and appreciation of the natural world (Smith, 2001).

In addition, research on positive youth development emphasizes the importance of a positive, inclusive atmosphere in youth programming (Roth & Brooks-Gunn, 2003). When youth participate in programs, they need to feel included and comfortable in order to benefit from the program. Together, the adult camp leaders; the camp counselors, who are often older 4-H teens; and the friendliness of other campers play an instrumental role in ensuring a fun and inclusive camp

community where youth can flourish.

Boys and girls attend 4-H camp together, and it is assumed that camp has the same impact on all campers, regardless of gender. Research shows, however, that girls and boys differ considerably in their social and relationship development. For example, girls are more likely to have a deeper level of intimacy in their friendships (Lansford & Parker, 1999). Boys spend more time in group activities, while girls prefer more one-on-one interaction (Benenson, 1990). Girls are also more likely to share their thoughts and feelings with, and receive more support and understanding from, their friends than boys (Dolgin & Kim, 1994).

One aspect of positive youth development programming that has not been looked at in any depth is whether there are gender differences in life skill development. Given that many of the life skills identified by Hendricks (1996) are relational in nature, it makes sense that there may be significant differences in development between boys and girls on some of the life-skill items.

In 2005, the American Camping Association (ACA) published the results of the first comprehensive evaluation of the impact of residential camps on youth (American Camping Association, 2005). The ACA study involved over 5,000 families at 80 camps across the United States. The study confirmed much of what camp practitioners have "known" for a long time: that residential camps have a significant impact on the social, cognitive, and physical development of young campers. While the results of the ACA study are more confirming than surprising, the study makes an important contribution to the systematic understanding of the impact of camping programs on youth.

This article reports the results of a systematic, multi-site evaluation of a 4-H residential camp program conducted with campers who attended one of 13 Oregon 4-H camps in the summer of 2004. The purpose of the evaluation was to examine whether 4-H residential camps had an impact on campers in the three main areas of the 4-H camp experience: personal growth, life skill development, and camper satisfaction as an indicator of the camp community's welcoming and supportive atmosphere. In addition, the study looked at gender differences in life skill development and camper satisfaction among campers. Like the ACA study, the results of this study are confirming more than they are surprising, but they nonetheless offer an important contribution to the scarce but developing body of research documenting the impact of youth residential camping programs.

Developing bodies of evaluation research is especially important in areas of traditional 4-H programming, programming that has often been done for years without any formal impact evaluation. While 4-H educators, volunteers, parents, and youth have long "known" the value of such programming, formal evaluation studies are important. Sometimes evaluations results confirm what we already suspect, and other times they challenge our assumptions about the impact of programming. In either case, formal evaluations are important for informing programming and articulating the impact of programming to stakeholders.

Methods and Procedures

The evaluation was conducted using a multi-site evaluation methodology, with each of the 13 participating camps administering the same questionnaire, and following the same evaluation protocol (Arnold, 2003; Garst & Bruce, 2003). The questionnaire included basic demographic information, eight questions related to the camper's perceived life skill development (Hendricks, 1996); six retrospective pre/post questions related to growth during camp (Pratt, McGuigan, & Katzev, 2000), and a set of four questions related to the camper's satisfaction with camp.

Because one of the most important aspects of conducting program evaluations at multiple sites is buy-in from the site directors (Arnold, 2003; Garst & Bruce, 2003), the questionnaire was developed with significant input from local camp directors, who are primarily 4-H agents in Oregon. At a staff development conference held in the spring of 2003, 4-H agents were invited to help articulate the impact of camp on youth. The information from this session was drafted into an initial two-page questionnaire. The questionnaire was then reviewed by three 4-H agents with significant camp expertise, as well as by a local 4-H county camp advisory council. Following the reviews, the final questionnaire was finalized for use in the study.

Each site agreed to designate time at the end of camp during which campers were asked to complete the questionnaire about their camp experience. The completed questionnaires were sent to the state 4-H office for data entry and analysis. By the end of the summer, each camp received a report of the results for their own camp from the state office. The data were then aggregated for use in this statewide analysis, a strategy that allows a more robust understanding of the impact of similar programs that are held at different sites (Arnold, 2003; Straw & Herrell, 2002).

Eight hundred forty-nine youth campers, entering grades 4 through 9, completed the questionnaire (100% response rate). Five hundred fifty-nine of the campers were girls (66%), and 238 were boys (34%). Sixty-one percent (518) of the campers were 4-H members. This was the first time attending 4-H Camp for 55% (467) of the campers.

Results

Opportunities for Personal Growth

To measure personal growth, campers were asked how they felt about six items related to the camp experience. For example, campers were asked about being away from home, managing their free time, living in nature, and doing skits or presentations in front of others. Using a retrospective pre-test and a 1-4 scale, campers rated each item based on how they felt before camp and then after camp. A rating of 1 indicated the statement was "not true" and a rating of 4 indicated the statement was "very true." Before and after ratings were analyzed using a paired t test. The analysis revealed a significant, positive change for each item ($p < .05$). Table 1 presents the pre- and post-camp mean scores and the results of the paired t test analysis.

Table 1.
Camper Skills Before and After Camp

| | N | Before Camp | After Camp | Mean Difference | SEM | t | df | Sig.*** |
|---|----------|--------------------|-------------------|------------------------|------------|----------|-----------|----------------|
| Being away from home | 844 | 3.58 | 3.68 | 0.10 | 0.02 | -4.53 | 843 | 0.00 |
| Knowledge about nature | 839 | 2.79 | 3.30 | 0.51 | 0.03 | -19.66 | 838 | 0.00 |
| Presentations in front of others | 838 | 3.20 | 3.47 | 0.27 | 0.02 | -11.12 | 837 | 0.00 |
| Managing free time | 841 | 3.29 | 3.54 | 0.25 | 0.02 | -10.95 | 840 | 0.00 |
| Liking nature and the outdoors | 840 | 3.54 | 3.64 | 0.10 | 0.02 | -6.38 | 839 | 0.00 |
| Meeting new people and friends | 842 | 3.66 | 3.79 | 0.13 | 0.02 | -8.03 | 841 | 0.00 |
| *** Statistically significant differences for all items | | | | | | | | |

Life Skill Development

Campers were asked how much 4-H camp helped them to develop life skills selected from the Targeting Life Skills Model (Hendricks, 1996). Campers rated each of eight skills on a 1 to 4 scale, with a rating of 1 indicating that camp contributed nothing to the development of that skill, and a 4 indicating that camp contributed "a lot!" (Cronbach's Alpha = .89). Mean ratings ranged from 3.10 (working through disagreements) to 3.47 (learning new things I like to do). Table 2 presents the score range and mean ratings for each of the life skills. Table 3 shows the percentage of campers rating who rated each life skill item a 3 or 4.

Table 2.
Camper Ratings of Life Skill Development

| | N | Min | Max | Mean | SD |
|---------------------------------------|----------|------------|------------|-------------|-----------|
| To learn new things that I like to do | 841 | 1 | 4 | 3.47 | 0.77 |
| To make me want to try new things | 840 | 1 | 4 | 3.42 | 0.81 |
| To feel good about myself | 844 | 1 | 4 | 3.41 | 0.82 |

| | | | | | |
|-------------------------------|-----|---|---|------|------|
| To be responsible | 841 | 1 | 4 | 3.35 | 0.82 |
| To cooperate with others | 836 | 1 | 4 | 3.35 | 0.80 |
| To talk to others more easily | 828 | 1 | 4 | 3.32 | 0.87 |
| To work with others as a team | 846 | 1 | 4 | 3.28 | 0.77 |
| To work through disagreements | 841 | 1 | 4 | 3.10 | 0.92 |
| $\alpha = .89$ | | | | | |

Table 3.
Percentage of Campers Rating Life Skill Item a Three or Four

| | Percentage |
|---------------------------------------|------------|
| To learn new things that I like to do | 91 |
| To make me want to try new things | 89 |
| To feel good about myself | 87 |
| To be responsible | 86 |
| To cooperate with others | 86 |
| To talk to others more easily | 84 |
| To work with others as a team | 86 |
| To work through disagreements | 78 |

Gender Differences in Life Skill Development

A one-way analysis of variance (ANOVA) was conducted to determine if there were significant differences between boys and girls and reported level of life skill development as a result of camp participation. Statistically significant gender differences in mean ratings were found for 3 items. Table 4 presents the results of the ANOVA.

Table 4.
ANOVA of Life Skills by Gender

| | Mean Ratings | | | |
|-------------------------------|--------------|-------|----|------|
| | Boys | Girls | df | F |
| To work with others as a team | 3.22 | 3.31 | 1 | 2.43 |
| To feel good about myself | 3.35 | 3.45 | 1 | 2.83 |

| | | | | |
|---------------------------------------|------|------|---|--------|
| To learn new things that I like to do | 3.37 | 3.52 | 1 | 7.22** |
| To make me want to try new things | 3.32 | 3.48 | 1 | 7.38** |
| To be responsible | 3.28 | 3.39 | 1 | 3.32 |
| To cooperate with others | 3.23 | 3.41 | 1 | 9.65** |
| To talk to others more easily | 3.26 | 3.35 | 1 | 1.99 |
| To work through disagreements | 3.03 | 3.13 | 1 | 2.27 |
| ** p < .05 | | | | |

Camper Satisfaction with Camp

Finally, in an effort to determine the extent of a positive atmosphere at camp, campers were asked about their counselors, friends, and whether camp was fun. Campers were asked to rate each of 4 items on a 1 to 4 scale, with 1 indicating "not true" and 4 indicating "very true" ($\alpha = .73$). Mean ratings for camp satisfaction ranged from 3.32 (camp was one of the most fun things I have done) to 3.80 (I liked my camp counselors). Table 5 presents the score range and mean ratings for each item.

Table 5.
Camper Ratings of Camp

| | N | Min. | Max. | Mean | SD |
|---|-----|------|------|------|------|
| I liked my camp counselor(s) | 839 | 1 | 4 | 3.80 | 0.56 |
| I made new friends at 4-H camp | 836 | 1 | 4 | 3.71 | 0.59 |
| I am going to share about camp with friends who were not here | 835 | 1 | 4 | 3.54 | 0.79 |
| I want to invite others to 4-H camp | 834 | 1 | 4 | 3.45 | 0.83 |
| 4-H Camp was one of the most fun things I have ever done | 839 | 1 | 4 | 3.32 | 0.86 |

Gender Differences in Camper Satisfaction with Camp

Finally, because many of the items that measured camp satisfaction had a relational quality, and because of the established gender differences in the social relationships of youth, a one-way ANOVA was conducted to determine any significant gender differences in camp satisfaction ratings. Statistically significant gender differences in mean ratings were found for 4 of the 5 items. Table 6 presents the results of the ANOVA.

Table 6.
ANOVA of Camp Satisfaction Ratings by Gender

| | Mean Ratings | | | |
|--|--------------|--|--|--|
| | | | | |

| | Boys | Girls | df | F |
|--|------|-------|----|---------|
| I liked my camp counselor(s) | 3.72 | 3.85 | 1 | 11.11** |
| I made new friends at 4-H camp | 3.64 | 3.75 | 1 | 6.24** |
| I am going to share about camp with friends | 3.30 | 3.66 | 1 | 40.70** |
| I want to invite others to 4-H camp | 3.23 | 3.56 | 1 | 29.75** |
| 4-H Camp was one of the most fun things I have ever done | 3.25 | 3.35 | 1 | 2.39 |

Conclusion

The results of the evaluation suggest that 4-H summer camp plays an important role in the development of young campers. The results show that camp provides an experience for youth to grow socially, to develop important life skills, and experience nature--all in a fun, hands-on setting. At the end of camp, campers reported that camp helped them to feel good about themselves, learn new things, to make friends, and work together in a spirit of cooperation. Perhaps most important, the natural setting of camp allowed campers to enjoy learning about the natural world.

The study explored gender differences in life skill development and camp satisfaction. As noted earlier, little has been done to understand gender differences in the impact of 4-H programming. This understanding seems important to consider given the established body of literature that documents such differences and the fact that much of 4-H programming is conducted with boys and girls together. The results showed significant gender difference in some of the life-skill items used for this study. Specifically, girls rated "learning new things I like to do," "trying new things," and "cooperating with others" significantly higher than boys. It appears that camp offers a place for youth to learn and try new things, particularly for girls. The reasons behind this finding are only speculative at this point, but present an interesting place for further investigation.

Girls also rated "cooperation with others" significantly higher than boys. This finding is consistent with research on gender differences in social development and therefore somewhat less surprising (Black, 2000). Despite the significant gender differences that were found, it is important to note that the mean ratings for each life skill items was above a 3.00 for both girls and boys, indicating that camp had an important impact on life skill development for both groups.

Significant gender differences were found for four of the five camp satisfaction items. Liking one's camp counselor, making friends, wanting to share camp with friends, and wanting to invite others to camp are all social or relational in quality and thus consistent more with the nature of girl's social development than boys (Dolgin & Kim, 1994). Given the gender differences found in this study and the fact that the items measuring camp satisfaction were highly social or relational in nature, it is important that future measures of program satisfaction or atmosphere contain items that are not entirely in the social-relational domain. Doing so will help avoid results that are biased by developmental gender differences.

The gender differences found in the study have important implications for future research and program design, but they should not be interpreted to mean that girls get more out of camp than boys. 4-H summer camp provides an experience consistent with the 4-H youth development philosophy. That is, youth learn and grow in situations where there is opportunity for hands-on, experiential learning, in a safe and inclusive atmosphere. Experiencing the out of doors and participating in educational programs has a greater impact when combined with camp's unique temporary community setting.

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