

Strengthening the 4-H Essential Elements of Positive Youth Development at Camp

Abstract

Summer camp programs provide distinct opportunities for positive youth development through caring relationships and opportunities to build skills. To examine the extent to which youths experience the 4-H Essential Elements through 4-H camp programs, we administered the National 4-H Camping Research Consortium's Camp Context Questionnaire to youths ($n = 776$) across 20 camps. Results indicated some exposure to the Essential Elements. Although mean scores related to establishing relationships with caring adults were high, room for improvement existed in the areas of self-determination, belonging, and personal safety. The results enabled state and local staff to implement strategic decisions for future camp programs and may be of value to others managing 4-H camp programming.

Keywords: [4-H youth development](#), [Essential Elements](#), [camp](#), [process-driven evaluation](#), [youth program design](#)

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Introduction

The 4-H motto, to make the best better (National 4-H History Preservation Team, n.d.), rings true as statewide programs evolve and adapt to meet youths' distinct strengths, needs, and interests (Arnold, 2015; Franz, Garst, & Gagnon, 2015). 4-H programs are grounded in a perspective of human development called positive youth development (PYD). PYD is a framework followed by youth-serving professionals that envisions youths as capable individuals who can explore their world, enhance their life skills, and contribute to society (Eccles & Gootman, 2002; Larson, 2000; Lerner, 2004) through high-quality youth programs (Roth & Brooks-Gunn, 2016) such as summer camp.

As noted by the American Camp Association (ACA) (2007), high-quality camps, often defined by the developmental supports and opportunities provided to youths, are intended to influence specific positive youth outcomes. Important factors such as opportunities to form relationships with caring and supportive adults, learn new skills, and develop skill mastery are common components of high-quality summer camp

programs (Henderson et al., 2007). Summer camps are a cornerstone of the multifaceted realm of youth programming. For example, many 4-H camps include activity lessons intended to build life skills as well as opportunities for fostering youth-adult relationships, as derived from the 4-H Essential Elements (Hedrick, Homan, & Dick, 2009).

The Essential Elements are a marker of PYD (Kress, 2005) and the foundation of 4-H programs, including summer camps (Garst et al., 2011). The Essential Elements are four components of an optimal PYD experience: belonging (e.g., youths' positive relationships with caring adults in an inclusive and safe environment), mastery (e.g., youths' engagement in learning and skill enhancement), independence (e.g., youths' active engagement and self-determination), and generosity (e.g., youths' recognition of the value and practice of community service) (Kress, 2005). Incorporation of the Essential Elements in program design may help camp providers deliver high-quality PYD experiences (Garst et al., 2011).

Study Background

Camp providers seeking to influence the positive trajectory of youths must analyze and evaluate their programs to recognize short-term outcomes and identify long-term impact. Program planning and evaluation are equally important; however, evaluation is frequently overlooked in the flurry of organizing and implementing community-based programs (Arnold, 2015). Youth programs benefit from evaluation when organizations initiate an intentional evaluation process and use the results to direct program improvements (ACA, 2006a; Gambone, Klem, & Connell, 2002). Camp providers using a process-driven evaluation approach are better equipped to identify "developmentally insufficient experiences" and create plans to address any deficiencies (ACA, 2006b, p. 6).

Two cases demonstrating the importance and use of a process-driven evaluation approach are found in the work of the ACA and the National 4-H Camping Research Consortium (NCRC). The ACA initiated the evaluation process in its national study *Inspirations: Developmental Supports and Opportunities of Youths' Experiences at Camp* to examine whether camp programs provided necessary PYD supports and opportunities. The study showed that the camp programs excelled at nurturing youth-adult relationships but provided insufficient opportunities for youth involvement in decision making and leadership (ACA, 2006b). A selection of participating camp providers engaged in a follow-up study, *Innovations: Improving Youth Experiences in Summer Programs*, to design and implement program improvement plans. Those participating camp providers improved their practices in areas that previously had produced insufficient camper experiences (ACA, 2006a). In another example of a process-driven approach to camp evaluation, the NCRC coordinated a multistate evaluation to understand how camp programs affected youth development (Garst et al., 2011). The consortium designed process and outcome evaluation tools and related logic models appropriate for examining how PYD is addressed through the Essential Elements at 4-H camps (Garst et al., 2007). The process tool developed by the consortium was the Camp Context Questionnaire (CCQ).

For nearly a century, 4-H camp programs have been a foundational experience for youths in Maryland. At a time when a robust literature regarding outcomes of the 4-H camp experience on youths emerged (e.g., Garst et al., 2011; Garton, Miltenberger, & Pruett, 2007; Hedrick et al., 2009), University of Maryland Extension 4-H (Maryland 4-H) educators and volunteers gathered anecdotes of positive camp outcomes. However, a formal, systematic evaluation of the developmental experiences of youths in the Maryland 4-H camp program was lacking. Therefore, we initiated a large-scale evaluation of the Maryland 4-H camp

program during the 2016 summer to learn the extent to which the Essential Elements were incorporated into the camp program design. The resulting data were pivotal for fostering understanding of the effectiveness of the state's 4-H camp program on youth development while providing data to make informed decisions about future camp program design and practice (Arnold, 2006).

4-H is one of several entities within the Extension system leading youth-oriented programs to provide a PYD experience. Our purpose was to better understand the ways Maryland 4-H addressed PYD through the Essential Elements in the camp program. Our research questions were as follows:

RQ 1—To what degree do youths experience the Essential Elements through the Maryland 4-H camp program?

RQ 2—What components of the Essential Elements need to be improved within the Maryland 4-H camp program?

Methods

We gathered data from youths ($n = 776$) aged 8–13 years who attended 20 coed 4-H resident and day camps across Maryland. The camp sessions lasted approximately 7 days and were held at both 4-H and non-4-H locations. The University of Maryland Institutional Review Board approved the study. We obtained parental consent through the camp registration process, and parents notified our first author if they were unwilling to engage their child in the study. Youths voluntarily completed the paper survey 1 day before the camp session concluded. An instructional video and written instructions were used to train the camp leaders on the survey protocols prior to the campers' arrival. The camp leaders administered and collected the surveys at their respective sites and returned all surveys to our team upon completion of the camp program.

Instrument

We used the aforementioned CCQ developed by the NCRC to measure the inclusion of the Essential Elements in a 4-H camp experience (Garst et al., 2007). Applying a 4-point Likert scale, 1 (*strongly disagree*) to 4 (*strongly agree*), campers indicated their levels of agreement with statements about specific experiences they may have encountered during camp.

The CCQ was designed as a process evaluation tool similar to the Community Action Framework (Gambone & Connell, 2004) and Youth Development Assessment Device (Sabatelli, Anderson, Kosutic, Sanderson, & Rubinfeld, 2009). By using this exploratory process evaluation tool, we were able to obtain descriptive information to assist Maryland 4-H in "determining whether specific components of the camp program should be strengthened to increase the perceived presence of the elements" (Garst et al., 2007, p. 5).

The designers of the CCQ proposed that a single instrument could measure the Essential Elements in a summer camp program (Garst et al., 2007). The instrument was originally constructed around eight items comprising the four Essential Elements; however, the original exploratory analysis resulted in identification of five prominent dimensions: caring adults, personal safety, learning engagement and mastery, belonging, and self-determination (Garst et al., 2007). Good internal consistency was demonstrated for four of the dimensions, with alpha scores ranging from .73 to .87, whereas the dimension of self-determination had a lower alpha score of .54 (Garst et al., 2007).

In our study, we modified the CCQ by eliminating items not relevant to the Maryland 4-H camp experience (e.g., "Campers had the opportunity to learn about different careers," "I could make choices about how I spent my free time"). Additionally, five items listed under personal safety were combined to create one new item: "I felt safe at camp." The original items (e.g., "I felt safe in my cabin," "I felt safe in the dining hall") were not applicable across camps; thus, we believed the data could be skewed by inaccurate responses. The dimension of personal safety was reverse coded, with ideal scores for this dimension centering on .5.

Analysis

We used principal component analysis (PCA) with oblimin rotation (SPSS Version 24) to examine the structure of the CCQ. PCA is sensitive to outliers; thus, we assessed the data for normality. This test revealed several outliers, which we removed before completing PCA. Additionally, we assessed the suitability of PCA. Specifically, the correlation matrix identified multiple coefficients of .3 and above; the Kaiser-Meyer-Olkin value was .92, which exceeded the recommended value of .6 (Kaiser, 1970, 1974); and Bartlett's test of specificity (Bartlett, 1954) reached statistical significance to support PCA.

We then isolated factors by identifying eigenvalues above 1 and conducting a parallel analysis (Watkins, 2000). The parallel analysis confirmed three factors that explained 44% of the total variance: caring adults, personal safety, and belonging and self-determination. The three retained factors, items, and coefficients are presented in Table 1. We set factor coefficients at a minimum of .50 to eliminate the chance association of items across factors.

Table 1.

Pattern and Structure Matrix for Principal Component Analysis with Oblimin Rotation of Three-Factor Solution for Camp Context Questionnaire

| Item | Pattern coefficients | | | Structure coefficients | | | |
|--|----------------------|-----------------|--------------------|------------------------|-----------------|--------------------|---------------|
| | Belonging & | | | Belonging & | | | |
| | Caring adults | Personal safety | self-determination | Caring adults | Personal safety | self-determination | Communalities |
| Leaders understood campers' problems | .733 | .018 | -.042 | .707 | -.158 | .324 | .502 |
| Leaders thought helping others was important | .715 | .003 | .046 | .737 | -.178 | .405 | .545 |
| Leaders liked being around campers | .714 | -.027 | -.056 | .693 | -.197 | .306 | .483 |
| Leaders tried to help homesick campers feel better | .713 | .007 | -.034 | .694 | -.165 | .323 | .482 |
| Leaders helped campers be successful | .710 | .021 | .049 | .729 | -.159 | .403 | .534 |

| Feature | Strengthening the 4-H Essential Elements of Positive Youth Development at Camp | | | | | | JOE 57(5) |
|---|--|-------------|-------------|-------------|-------------|-------------|-----------|
| Campers were expected to be honest | .618 | -.040 | -.095 | .580 | -.181 | .219 | .344 |
| Leaders were people I could trust | .555 | -.085 | .089 | .621 | -.232 | .377 | .398 |
| Campers accomplished something they couldn't do the first day | .503 | .044 | .053 | .518 | -.086 | .301 | .273 |
| I learned things that will be useful in the future | .466 | .033 | .310 | .614 | -.117 | .541 | .450 |
| I could go to a leader if I had a problem | .452 | -.075 | .141 | .541 | -.202 | .376 | .312 |
| I felt safe at camp | .418 | -.126 | .293 | .596 | -2.62 | .517 | .433 |
| Campers could be a part of making group decisions | .389 | -.059 | .204 | .506 | -.178 | .406 | .290 |
| Campers build friendships that will last after camp | .279 | -.033 | .173 | .374 | -.121 | .317 | .164 |
| Other kids made fun of me | .149 | .803 | -.193 | -.146 | .788 | -.208 | .651 |
| I was teased | .047 | .775 | -.035 | -.161 | .767 | -.098 | .590 |
| Other kids did not like me | .155 | .770 | -.211 | -.141 | .755 | -.219 | .606 |
| Mean jokes were played on kids | -.080 | .741 | .009 | -.259 | .760 | -.114 | .583 |
| Campers picked on one another | -1.88 | .678 | .182 | -.263 | .704 | .012 | .528 |
| Campers messed with other campers' belongings | -.267 | .585 | .289 | -.266 | .618 | .090 | .458 |
| I felt like I had a choice in my camp classes | -.033 | -.023 | .752 | .351 | -.099 | .738 | .546 |
| I could make choices for activities | -.077 | -.048 | .742 | .308 | -.112 | .709 | .508 |
| I felt free to express my opinion | .174 | -.094 | .575 | .486 | -.201 | .673 | .490 |

| Feature | Strengthening the 4-H Essential Elements of Positive Youth Development at Camp | | | | | | JOE 57(5) |
|--|--|-------|-------------|------|-------|-------------|-----------|
| I felt accepted by the other campers | .115 | -.270 | .529 | .447 | -.357 | .617 | .474 |
| I felt good about something that I accomplished | .339 | -.069 | .493 | .604 | -.207 | .671 | .549 |
| I pushed myself harder because of challenging activities | .204 | .127 | .408 | .377 | .031 | .496 | .284 |
| My classes were interesting | .308 | .016 | .384 | .497 | -.103 | .537 | .358 |
| My skills in some activities improved | .269 | .021 | .381 | .455 | -.088 | .514 | .316 |
| Campers taught each other | .194 | .068 | .326 | .340 | -.016 | .415 | .200 |

Note. Major loadings for each item are in bold.

Results

Majority demographic groups among the responding youths were females (55%), those who identified as White (80%), those who attended a resident camp versus a day camp (72% vs. 29%), and those within the age range of 10–13 years (70%).

On the basis of the PCA results, we analyzed the three new factors and used the composite mean scores to examine individual program components. Table 2 shows the means, standard deviations, and alpha scores for the CCQ items.

Table 2.

Camper Perceptions of Essential Elements Within the Context of Summer Camp ($n = 776$)

| Camp Context Questionnaire item^a | M (SD) | Composite mean | |
|--|---------------|--------------------------|---------------------------------------|
| | | score^b | Cronbach's α |
| Caring adults | | 3.51 (.427) | .835 |
| Leaders helped campers be successful | 3.67 (.551) | | |
| Leaders were people I could trust | 3.62 (.631) | | |
| Campers were expected to be honest | 3.61 (.546) | | |
| Leaders liked being around campers | 3.52 (.682) | | |
| Leaders tried to help homesick campers feel better | 3.51 (.682) | | |
| Leader's understood campers' problems | 3.41 (.663) | | |

| | | |
|---|-------------|------|
| Campers accomplished something they couldn't do the first day | 3.26 (.728) | |
| Belonging & self-determination | 3.29 (.572) | .753 |
| I felt accepted by other campers | 3.42 (.632) | |
| I felt free to express my opinions | 3.33 (.731) | |
| I could make choices for activities | 3.25 (.789) | |
| I felt like I had a choice in my camp classes | 3.24 (.831) | |
| Personal safety ^c | 1.78 (.683) | .842 |
| I was teased | 1.53 (.831) | |
| Other kids made fun of me | 1.59 (.867) | |
| Other kids did not like me | 1.71 (.845) | |
| Mean jokes were played on kids | 1.84 (.970) | |
| Campers picked on one another | 1.95 (.937) | |
| Campers messed with other campers' belongings | 1.98 (.925) | |

^aScale 1–4, where 1 = *strongly disagree* and 4 = *strongly agree*. ^bComposite mean score was calculated for each dimension as a comparison for the individual items. ^cPersonal safety was reverse coded; lower mean scores suggest higher rates of feeling safe.

Discussion

Our purpose with the study described here was to better understand the ways Maryland 4-H addressed PYD through the Essential Elements in camp programs. A primary goal of the NCRC centered on encouraging 4-H program developers' use of common instruments to gain deeper insights into camp program processes and outcomes to make more informed program decisions (Garst et al., 2007). Our findings suggest that Maryland youths experienced some program outcomes related to the Essential Elements during their camp experiences.

The dimension of caring adults emerged as a relevant factor related to campers' Essential Elements experience in the Maryland 4-H camp programs. The camp leaders were individuals who were trustworthy and provided assistance throughout the week. This dimension is particularly important, as youths experience a multitude of benefits when engaged in caring, supportive youth-adult relationships with nonparental adults (Bowers et al., 2014; Henderson et al., 2007).

Despite the comparatively high mean scores, the Maryland 4-H state camp action team still believed that strengthening youth-adult relationships was an important focus for future staff training. For example, more attention was directed toward the relationship between teen and adult staff in addition to the staff-camper relationship. The role of a camp counselor is multifaceted and evolving depending on campers' needs. For a camp counselor to demonstrate the trait of being a caring adult, he or she must be attentive to campers' needs while also supporting and encouraging each campers' skill-building process throughout the program.

The second dimension that emerged in our study centered on items related to both belonging and self-determination. Campers felt accepted and able to share their opinions and felt that they had the ability to choose activities in which to participate. The provision of opportunities that empower youths and enable them to connect with others can create a welcoming and inclusive program environment (Hensley, Place, Jordan, & Israel, 2007).

Our Maryland 4-H camp research team recognized that the results were favorable but could be improved as only a portion of campers actually possessed the opportunity for self-determination during camp. Thus, the Maryland 4-H state camp action team identified additional ways for all campers to engage in more leadership and group decision-making opportunities, such as leading songs, determining when the group moves on to new activities, or leading daily chores. Youths who have the ability to lead activities and make decisions may need adults to step back to create an experiential learning opportunity (Cowan & Smith, 2010). Leadership opportunities may enhance youths' feelings of belonging and connection to a program (Eccles & Gootman, 2002; Hensley et al., 2007).

The third dimension that emerged in the study was personal safety, which was a programmatic area of emphasis for which Maryland 4-H educators dedicated considerable time during staff training. Thus, we were surprised to see results suggesting that campers may have experienced negative situations with their peers. Despite campers feeling accepted by others, they reported instances of campers disrespecting others' belongings or making fun of others. A core tenet of belonging is feeling safe in one's environment (Kress, 2005). Thus, opportunities for positive growth and development can be thwarted when a young person does not feel safe in his or her environment (Eccles & Gootman, 2002).

Our Maryland 4-H camp research team reflected on the camp program and training to determine whether specific areas of personal safety were inadequately addressed. The staff trainings included many hours dedicated to physical safety, risk management, and youth-adult relationship topics. However, certain elements of personal safety (i.e., interpersonal conflict) were not given the same level of detailed coverage. Therefore, the Maryland 4-H state camp action team sought to create a culture of kindness throughout the camp programs. Specifically, character development lessons were incorporated into staff training, and camp leaders began teaching campers to treat others in the way they would wish to be treated.

Youths encounter and navigate challenging relationships throughout their development (Rusk et al., 2013). The highly interactive design and communal living environment of resident camp programs may create opportunities for youths to build relevant interpersonal skills (Arnold, Bourdeau, & Nagele, 2005). The presence of caring adults and feelings of belonging in the program may help mitigate some negative life experiences for youths (Larson & Tran, 2014).

A significant goal of our study was to engage in a process-driven evaluation to examine setting-level features of Maryland 4-H camp programs related to the Essential Elements. The use of the CCQ enabled us to gather statewide data and use the results to examine specific areas of the camp program. The evaluation results were pertinent to the long-term design of Maryland 4-H camps and equally relevant to the enhancement of local programs (ACA, 2006a; Gambone et al., 2002).

Relevant personnel in each county that provided a 4-H camp program were able to compare their site-specific

data to the overall state averages. Most used the data to update their parent orientation, staff training, and marketing materials. The Maryland 4-H state camp action team used the results to identify specific focus areas (i.e., leadership or kindness) that all county camp programs have addressed each year since the evaluation. The statewide focus areas and evaluation data empowered camp directors and county educators to make informed programmatic decisions (Arnold, 2015).

Limitations

Our study findings should be considered within the limits of the cross-sectional design. The Maryland 4-H team sought to obtain foundational data to inform future programmatic and staffing decisions for camp programs statewide. The study was initiated at the state level, and the individual 4-H camps were not required to participate. This voluntary arrangement resulted in a less racially and ethnically diverse sample of campers. Future studies would benefit from researchers engaging the full spectrum of campers across the programs conducted statewide.

Future research should include a confirmatory factor analysis of the CCQ. Through PCA, we identified three factors, whereas the original designers determined that five dimensions were relevant to the study of Essential Elements in a camp program. A full confirmatory factor analysis and validation of the instrument would strengthen information regarding the usefulness of the measure for practical and research applications (Hurley et al., 1997). The use of confirmatory approaches (Gagnon, Garst, & Townsend, 2019) for validating measures has become increasingly common within the camp literature.

Conclusion and Implications

Personnel with the Maryland 4-H camp program sought to build organizational evaluation capacity (Stockdill, Baizerman, & Compton, 2002; Vengrin, Westfall-Rudd, Archibald, Rudd, & Singh, 2018) and undertook a large-scale evaluation project involving nearly all camp sites throughout the state (Arnold, 2006). The CCQ developed by the NCRC (Garst et al., 2007) provided a starting point for further discussion regarding the quality of staff, activities, and youths' decision-making opportunities within the camp programs.

The state now has baseline data to use for further evaluation of PYD provided through camp programs. Additionally, the availability of our findings allowed state and local program providers to gain a better understanding of the youths' camp experiences. Most importantly, the study enabled the state to reflect on the program and consider specific areas for improvement. Maryland 4-H camp program leadership learned that camp leaders were viewed as caring adults and that campers felt accepted by others but acknowledged that additional attention to campers' interpersonal relationships was needed.

On the basis of our experience with the study reported here, we present three implications for Extension educators seeking to gain a better understanding of the impact on PYD of Essential Elements incorporated in a camp program.

1. A process-driven evaluation can be overwhelming for program staff new to evaluation; thus, some staff may balk at an opportunity to examine their camp. Extension educators should allow adequate time to facilitate buy-in from staff for a large-scale program evaluation. Many Maryland 4-H camp directors reluctantly agreed to participate and felt challenged by the evaluative process. Yet they were enthusiastic upon receiving the county-level report with recommendations for improving their camps.

2. The use of one evaluative instrument can be challenging when the included camps vary in length, activity focus, staff size, and camper age. Yet the CCQ provided Maryland 4-H with an opportunity to gain baseline information for making future decisions. The complete results helped our research team understand the dimensions of the Essential Elements most prevalent across the camp programs as well as specific dimensions absent from the Maryland 4-H camp experience.
3. It is helpful to contemplate questions such as these: Do we actually offer youth the opportunity to . . . ? Which activities or experiences can be linked to the Essential Elements? How often do youth actually engage in activities specifically linked to the Essential Elements? These questions and their answers can lead to a stronger, more outcome-focused youth program.

Summer camp experiences can contribute to youths' social and personal skill development (e.g., Glover, Graham, Mock, Carruthers, & Chapeskie, 2013; Thurber, Scanlin, Scheuler, & Henderson, 2006). The Essential Elements include important factors that should be present in a youth's camp experience to foster PYD (Galloway, Bourdeau, Arnold, & Nott, 2013; Garst et al., 2011). A process-driven evaluation is an important tool for ensuring that a program is addressing stated goals and outcomes (ACA, 2006a; Roth & Brooks-Gunn, 2016).

Author Notes

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