

# 4-H Thrive!

## Implementation of the Step-It-Up-2-Thrive Curriculum in 4-H 2010 – 2012



*"I think everyone should do this, not just 4-H kids...I think it's really important, even for adults."*

# 4-H Thrive!

## 2010 – 2012

Recap of Planning Efforts & Summary of Findings  
California 4-H Youth Development Program

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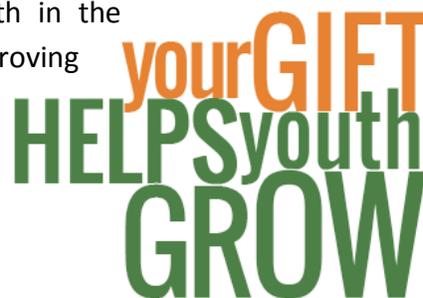
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# INTRODUCTION

## Overview

In March 2010, the California 4-H Youth Development Program (YDP) received a gift from the Thrive Foundation for Youth and with this gift embarked on an exciting opportunity to strengthen the program through integration of the most recent, cutting edge research on positive youth development. After conducting a thorough review of the research on youth development and promising youth development programs, the Thrive Foundation for Youth developed a “theory of change,” to identify what young people need to experience in youth programs to thrive and reach their full potential. Based on the theory, the Thrive Foundation for Youth designed a curriculum called Step-It-Up-2-Thrive aimed at actively promoting thriving in youth ages 10-19 years old. The California 4-H YDP is one of several youth programs to partner with the Foundation with the goal of delivering the thriving curriculum to their youth. The California 4-H YDP staff have adapted the curriculum and fully integrated it into 4-H programming.

This report summarizes the work that 4-H has done over the first three years of the gift, including the planning process and the activities that 4-H engaged in to imbed and integrate the Thrive curriculum into existing programming. In this report we also provide a preliminary assessment of the effect of the Thrive curriculum on youth in the program. Finally, we make suggestions for (1) adjusting and improving implementation of the Thrive curriculum into 4-H activities to maximize youth thriving outcomes and (2) extending the evaluation efforts to include testing theoretical models of thriving.



## Background

### POSITIVE YOUTH DEVELOPMENT

Positive youth development (PYD) forms the context through which 4-H provides programs to youth. PYD is a practice that fosters young people’s relationships with people and institutions that are mutually beneficial, productive and constructive; that recognizes and enhances youth’s strengths; and that promotes positive outcomes by providing youth with opportunities to build on their strengths. In theory, infusing positive youth development practices into



### About the California 4-H Youth Development Program

The University of California 4-H YDP is dedicated to **helping young people 5-to 19 years old reach their full potential and grow into competent, contributing, and caring citizens**. The mission of the program is to *“engage youth in reaching their fullest potential while advancing the field of youth development.”*

The California 4-H YDP is part of the national 4-H movement, established over a century ago. 4-H is delivered through the Cooperative Extension System and is a partnership between the United States Department of Agriculture, the land-grant university system, and local governments. In California, the 4-H YDP is administered by the University of California Division of Agriculture and Natural Resources and delivered through Cooperative Extension to youth, families, and communities in 57 counties.

The California 4-H YDP has four core content areas that serve as the framework for youth learning and activities: Science, Engineering, and Technology (SET), Citizenship, Leadership, and Healthy Living. Within these areas, youth may engage in project-based learning activities such as robotics, rocketry, water education, environmental science, animal science, leadership, service learning, agriculture, gardening, health, nutrition, and public speaking. The youth engage in these activities through 4-H’s existing delivery modes including clubs, afterschool programs, residential camping programs, school enrichment, and short-term and special interest programs. **These programs are all delivered in a positive youth development context that incorporates youth development and educational practices shown to best promote positive youth development.**

During the 2011-12 program year, the California 4-H YDP program served over 78,730 youth. Of these youth, approximately 32,014 of these youth participated in 4-H clubs, 32,975 youth participated in school enrichment programs delivered by 4-H, 3,381 youth participated in after school programs that used 4-H curricula, and 5216 youth, including many of who were involved in 4-H in other capacities, also participated in 4-H camping programs. Youth were served directly by nearly 13,400 adult and 6,893 youth leaders; and indirectly by approximately 135 county staff.

programming leads to thriving, or the growth of attributes that mark a flourishing, healthy young person. **Dr. Richard Lerner** proposed that key characteristics of youth are important for positive youth development including being competent—having a positive view of one’s efficacy; confident – having an internal sense of positive self-worth; connection – forming positive bonds with people or institutions; having character—respect for social and cultural norms; having a sense of caring—a sense of empathy for others; and contribution – giving of one’s self, family, and community (Lerner et al., 2011). To summarize, these attributes or

**indicators of thriving** are defined as – **competence, confidence, character, connection, caring, and contribution to self, family, community, and civil society**. These outcomes have been called **the Six Cs (6 Cs) of PYD** (Lerner et al., 2005; Roth & Brooks-Gunn, 2003a,b).

## MINDSET

A wealth of research has been conducted to identify the practices that help youth thrive. For instance, **Dr. Carol Dweck** proposed that success (e.g., school success) is related to one's view about the fixed versus malleable nature of traits and ability. Having a "fixed mindset," the belief that intelligence or a given ability is innate and unchanging, leads youth to disengage and give up when they are confronted with a challenging task. On the other hand, **youth who have a "growth mindset" believe that through sustained effort, even in the face of challenge, they can learn and improve** (Dweck & Leggett, 1988).

## SPARKS

Based on his research on positive youth development, **Dr. Peter Benson, with Dr. Peter Scales**, proposed that having a "**spark, or a passion for a self-identified interest, skill, or talent, provides youth with excitement and joy, gives them a sense of purpose and direction, and a way to contribute to the world.**" Sparks shape development because they provide a source of intrinsic motivation, meaning, and self-directed action that help drive young people to put forth initiative to act in a particular area (e.g., further develop one's leadership skills). Benson and Scales (2009) proposed that **having a positive, caring, adult as a guide** to help provide youth support, opportunities to pursue their sparks, and appropriate pressure to keep moving to take the next step helps youth thrive.

## GOAL MANAGEMENT

Research shows us that **youth thrive when they have strong goal management skills** to support and guide their interests and skills. Components that are important for goal management include "**goal selection,**" or the ability to identify a goal; "**pursuit of strategies,**" or the ability to plan a method for meeting goals; and "**shifting gears,**" or an understanding how to adapt or modify goals or strategies when difficulties are encountered. **These facets of goal management are known as GPS** (Gestsdóttir & Lerner, 2008; Lerner, Lerner, Lewin-Bizan, Bowers, Boyd, Mueller et al., 2011).



## SELF-REFLECTION ON THRIVING INDICATORS

**Self-reflection is a higher order meta-cognitive process and involves recreating and making sense of an experience through memories of feelings and thoughts.** Reflecting on previous experiences provides information for moving forward in pursuit of goals and leads to goal clarity. Moreover, positive youth development researchers have shown that self-reflection is an

important component of the intentional self-regulation cycle, which includes responding to performance feedback by adjusting goals and motivations in productive ways (Zimmerman, 2002). Self-reflection is also an important component of the experiential learning cycle (Kolb, Boyatzis, & Mainemelis, 1999), which is a holistic and cyclical theory of learning.

The vast array of research that has been conducted by leaders in the field of positive youth development and the theories that resulted have been integrated into the Step-It-Up-2-Thrive theory of change and associated curriculum. Through a partnership with the Thrive Foundation for Youth, the California YDP worked to implement this theory and curriculum into its program for youth.

### **The 4-H Thrive! Model**

The California 4-H YDP has a long history of promoting positive youth development and, therefore, provided an optimal environment in which to implement the Step-It-Up-2-Thrive curriculum. **4-H Thrive! is the adapted version of Step-It-Up-2-Thrive designed for the California 4-H YDP.** The curriculum incorporates the research described above and guides youth through activities designed to promote thriving, specifically the Six Cs of PYD. *4-H Thrive!* encourages youth to identify their sparks, adopt a growth mindset, self-reflect on the indicators of thriving, and build goal management skills; all of which have been shown to be critical for promoting thriving. The expectation is that youth who participate in *4-H Thrive!* will gain skills in the key components of positive youth development, which will lead to increases in the 6 Cs and overall thriving.

### **4-H Staff and Project Leaders**

Project leaders are the core of the 4-H YDP and are primarily responsible for mentoring and working directly with youth, guiding them through activities and projects. Thus, project leaders directly influence youth experiences in the program and are an essential part of the California 4-H YDP. **As such, project leaders are a critical part of the success of 4-H Thrive! because they are responsible for the direct implementation of the curriculum.**



Project leaders are supported by University of California Division of Agriculture and Natural Resources staff, which includes 4-H Program Representatives who plan, implement, and deliver 4-H educational programs; 4-H Youth Development Advisors who provide academic leadership to the 4-H YDP in their counties; specialists (faculty who provide expertise to Cooperative Extension); community members; and the State 4-H Office.

# IMPLEMENTATION

The goal of the California 4-H YDP partnership with the Thrive Foundation for Youth was to integrate the Step-It-Up-2-Thrive Theory of Change into 4-H's programs, curricula and other educational materials, and professional and volunteer development efforts. The section below describes the overall planning and development phase, training plan, evaluation plan, and pilot and implementation phase.



## Planning and Development

The first year was devoted to establishing a 5-year plan, developing program infrastructure, creating the initial curriculum and core messages, and developing training programs so that Step-It-Up-2-Thrive could be infused throughout the California 4-H YDP.

In addition, the 4-H Online Record Book (ORB) was developed as a tool to integrate components of the theory of change such as goal management and self-reflection into the existing record keeping traditions and practices of the 4-H YDP, as well as a tool to collect data and assess the effectiveness of the Thrive curriculum.

The second year we launched *4-H Thrive!* curriculum that was written and designed for junior and teen leaders who are in the club program and enrolled in a 4-H Leadership Development Project. In addition, extensive professional development and training modules were developed and delivered to over 4,000 adults by the end of the second year.

## Training

Training began in September 2010 with a statewide conference for all 4-H YDP staff. Staff learned about the components of the theory of change, and the research on which it was based. Subsequently, **each county selected two adult volunteers, two youth members, and one 4-H YDP staff to serve as "Master Trainers."** Employing a "train-the-trainer" approach, Master Trainers attended two-day training sessions (the first occurring during the spring of 2011) and then returned to their counties to train local project leaders who would deliver the Thrive curriculum in leadership projects to 4-H youth in grades 6 through 12. Master Trainers and 4-H YDP staff provided on-going



individualized support to project leaders who implemented the curriculum to youth. Annually, everyone received refresher training including Master Trainers, 4-H YDP staff, and project leaders implementing the Thrive curriculum in leadership projects. The refresher training sessions were designed to reinforce key concepts, train new components of the curriculum, and provide opportunities to share experiences with others administering Thrive. These training sessions occurred in the fall of each program year. In addition to receiving training on implementing the curriculum, staff and project leaders statewide received training on how to navigate and promote the 4-H ORB.



### Key Training Outputs

- ✓ **15 hours** of train-the-trainer sessions were conducted **17 times** throughout the state over a two-year period for a total of **6960 training hours** completed.
- ✓ **464 Master trainers** were trained, including **128 youth**.
- ✓ **529 adults** received curriculum-based leadership training.
- ✓ **325 staff** participated in annual 4-H conferences or staff development days where they received Thrive lessons or messages integrated into existing content.



### Pilot and Implementation

Implementing the Step-it-Up-2-Thrive curriculum into existing 4-H programming was a vast and comprehensive statewide effort. **A team of 4-H academic coordinators, specialists, and advisors worked together (“4-H Thrive! Leadership Team”) to plan for the implementation of the Thrive curriculum.** There were several major accomplishments associated with the effort to implement and integrate Thrive into 4-H as described below.

The *4-H Thrive!* Leadership Team **adapted Step-It-Up-2-Thrive curriculum** for delivery in 4-H programs.

- **We distributed over 770 iChampion Adult Volunteer Guides to project leaders**, which provide extensive content on 4-H youth development practices as well as the Step-It-Up-2-Thrive Theory of Change.
- **We distributed approximately 3,500 iThrive Youth Member Guides to youth members**, which cover the thriving concepts and guide youth through activities and self-reflection.

**Thrive language was imbedded in all of 4-H publications** (samples available upon request), such as

- UC 4-H YPD Framework
- Project Sheets
- 4-H statewide website
- 4-H's monthly E-newsletters



## Key Implementation Outputs

- ✓ **35 counties** implemented the Thrive curriculum.
- ✓ **6,760 adults** participated in at least one event in which they received Thrive lessons or messages.
- ✓ **5,242 youth** received Thrive messages during the 2010-11 and/or 2011-12 4-H year.
  - **1,726 of these youth** participated in at least one event in which they received Thrive lessons or messages.
  - **3,516 of these youth** received the Thrive curriculum during a **year-long leadership project**.



# EVALUATION

## Overview

Evaluation of the *4-H Thrive!* curriculum began in 2011 and continues today. **Evaluation data are collected yearly from youth, project leaders, and master trainers.** Project leaders and master trainers report on their content knowledge about Thrive concepts and feelings of efficacy about their ability to train project leaders (master trainers) or to deliver the Thrive curriculum (project leaders). In addition, master trainers and project leaders report their beliefs about whether they feel the Thrive curriculum will positively affect youth. 4-H youth report on their sparks, growth mindset, GPS (goal management), the 6 Cs of PYD (caring, character, competence, confidence, connection, and contribution), self-esteem, depression, and stress. Finally, fidelity data and qualitative data are gathered throughout the year.

## Research Questions

**The goal of the evaluation is to document whether youth benefited from participating in the evidence-based Step-It-Up-2-Thrive curriculum,** as adapted for and delivered throughout the California 4-H YDP. Below we list the specific research questions we tested, based on youth surveys and project leader surveys collected in 2011 and 2012. Following the list of research questions there is a brief overview of the methods (full surveys are available in Appendix A), followed by the results. Clicking on any research question below will take you to the results for that question.

We first asked whether participating in *4-H Thrive!* was a positive experience for youth and project leaders. These qualitative data come from individual interviews with the youth and project leaders. We then used the quantitative data to test the effects of *4-H Thrive!*.

### Listening to youth:

1. Did youth enjoy participating in *4-H Thrive!*?
2. Would youth recommend *4-H Thrive!* to others?

### Testing benefits to youth:

1. Do youth who participate in *4-H Thrive!* increase in program components?
2. Do youth who increase in one program component also increase in other programs components?



3. Do youth who increase in one program component also increase in adjustment outcomes?

#### Listening to project leaders:

1. What did project leaders enjoy most about leading *4-H Thrive!*?
2. Would project leaders recommend *4-H Thrive!* to others?
3. Would project leaders lead *4-H Thrive!* again?

#### Testing project leader impacts:

1. Do project leader characteristics influence youth's outcomes?
2. Do project leaders become better Spark Champions, as reported by youth?

## Methods

### Procedures

Data were collected from 4-H youth in California who participated in *4-H Thrive!*. Youth surveys were embedded in the newly developed Online Record Book (ORB). Project leader surveys were collected at the end of their training session. In addition, a small subset of youth and project leaders were interviewed by a 4-H staff member in their county.

### Measures

**Youth surveys.** Data were collected once in 2011 and once in 2012 to assess youth gains on core Step-It-Up-2-Thrive program components and adjustment outcomes.

- ✓ **Program components:** Sparks, Mindset, GPS, and Thriving Indicators
- ✓ **Adjustment outcomes:** Stress, Depression, and Self-Esteem

**Project leader surveys.** Data were collected in 2011 following project leader training. Project leaders reported their buy-in (enthusiasm) about *4-H Thrive!* and their perceived skills as a leader.

**Interviews.** Following the completion of the project in 2012, both youth and project leaders were asked about their experiences with *4-H Thrive!*, their knowledge about the core program components, what they enjoyed about the program, and what they would tell others about the program. In addition, youth were asked how they have applied what they learned from *4-H Thrive!* to other parts of their life, and project leaders were asked how 4-H helps promote the core program components in youth.

## Sample

Participants in the initial phase of *4-H Thrive!* were drawn from leadership projects across California. The evaluation sample was primarily drawn from four counties: Santa Clara, Marin, San Joaquin, and Lake. These counties were chosen to represent both rural and urban environments in California.



### Time 1 sample:

- 582 youth, ages 9 to 19 years
- 48 project leaders

### Time 2 sample:

- 501 youth, ages 9 to 19 years

**Most of the research questions are related to change over time** (e.g., did youth show increases in program components from pre-*4-H Thrive!* to post-*4-H Thrive!*), so most analyses are based on our longitudinal sample ( $N$  range= 89 to 151).

### Longitudinal sample

- 187 youth with at least one measure completed
- 91.6% White
- 70.6 % female
- Ages 10 to 18 (mean 14.33)
- 62.1% live in rural areas

## Results

### Listening to youth

#### Did youth enjoy participating in *4-H Thrive!*?

Fourteen youth were interviewed about their experiences participating in *4-H Thrive!*. Below is a word cloud displaying the most frequently used words in their responses to being asked **what they enjoyed the most about the Thrive program**. Words in larger font were mentioned more often than words in smaller font. As can be seen, youth referred to “collaboration”, “fun” and “learn” as parts of the program they enjoyed the most. In addition, youth made references to personal growth, with words like “confident,” “goals,” and “stronger,” and to connections they made, with words like “teamwork,” “socializing,” and “group”. Finally, youth talked about activities with words like “games,” “activities,” and “projects.”



### Would youth recommend 4-H Thrive! to others?

Youth were asked, “What would you tell other young people about Thrive?” Youth explained what they learned in the program and how the program helps them, providing evidence of youth buy-in and enthusiasm for the program.

*“I would tell [other youth] that they should join the project and that they should come into it with an **open mind**. Just interact with others and that you’ll automatically get something from it. **Everyone can get anything from it.**”*

*“I would say it helps you find **goals** for yourself, and makes you a better person.”*

*“I would tell them that it's really **fun**, and you learn more about yourself and what you like doing.”*

Youth believed that the 4-H Thrive! program was meaningful. They enjoyed the hands-on activities, and were eager to tell other youth to participate in the program. 4-H youth clearly enjoyed 4-H Thrive! and felt that the program is worthwhile and beneficial for everyone. But, did 4-H Thrive! have a **measurable impact** on youth?

### Testing Benefits for Youth



## DO YOUTH WHO PARTICIPATE IN 4-H THRIVE! INCREASE IN PROGRAM COMPONENTS?

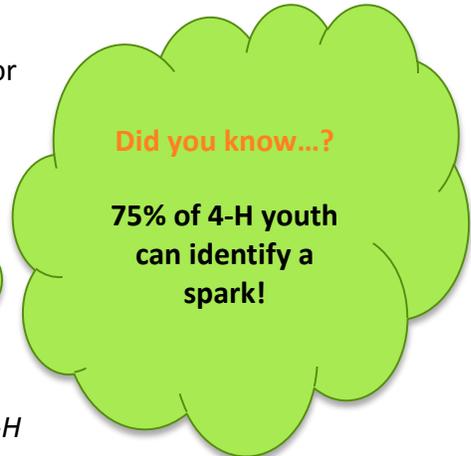


### Sparks

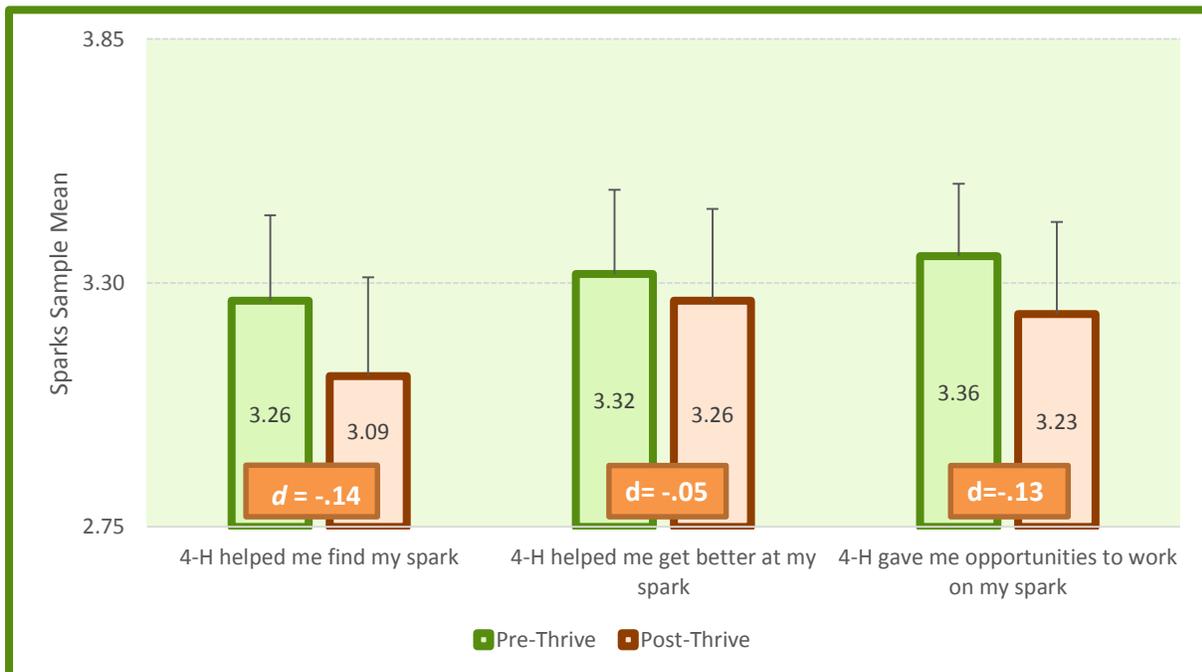
**The task:** Youth were asked to draw pictures that illustrated what things they enjoyed doing, the people that mattered to them, what activities and social issues or causes mattered, and what makes the youth want to jump out of bed in the morning.

**The goal:** Give youth the opportunity to identify, think about, and discuss their spark.

**The challenges:** 4-H provides a high-quality context for identifying and developing sparks; thus, a large majority of 4-H youth can identify a spark making it difficult to find large pre-post changes. Nonetheless, education and guidance will continue to be provided with the goal of getting 100% of 4-H youth to be able to identify and grow their spark(s).



Presented below are the mean scores on Spark items pre 4-H Thrive! and post 4-H Thrive!. We also present the effect size (*d*), which measures the standardized difference between these means. For comparison, a .20 standardized difference is considered a “small”, .50 “medium”, and .80 “large” effect size.

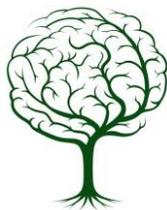


Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N= 129, 130, and 105, respectively.

**The result:** Overall, a large majority of youth reported having a spark and this did not change over time. There was a slight, non-significant, decrease in youth reporting that 4-H helped them find their spark, 4-H helped youth get better at their spark and 4-H provided opportunities to get better at their spark. However, 28% did show increases on these measures.

**28% of youth increased their Sparks at least ¼ of a standard deviation.**

**Future directions:** We will code youth’s sparks for clarity, contribution to their community, and the overall quality of the spark. This will allow us to better understand program impacts on youth’s sparks. Based on the findings above, we will work with project leaders to provide training and resources so they can learn how to help youth get better at their spark and provide more opportunities for youth to work on their spark. We will also review videos of sparks lessons to try to identify areas for improvement. In addition, the current measure may not be sensitive to changes in individual differences. We propose supplementing the current measures with measure tapping passion to see if that captures the spark concept and shows more change over time. See the Future Directions for a detailed discussion.



## **Growth Mindset**

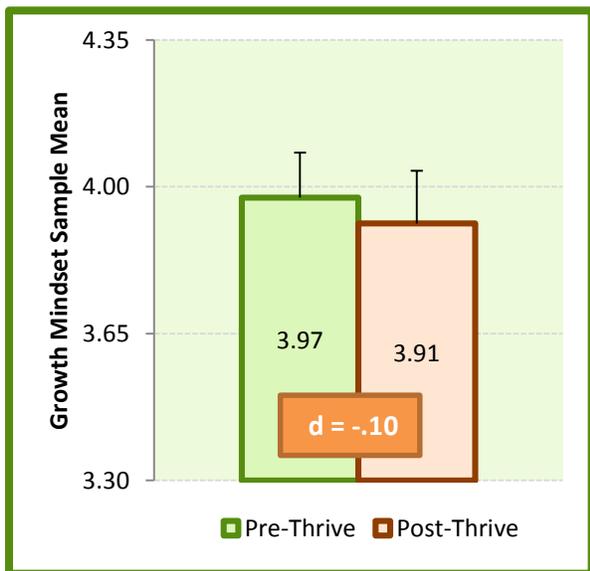
**The task:** Youth were taught that the brain grows and gets stronger when exercised, like all muscles in the body, and they learned that the best way to grow their brain is to try new things and persist through challenge. Youth played challenging games and discussed which attitudes during the challenge represented a growth versus a fixed mindset.

Youth and project leaders participate in the “Traffic Jam” game. This game gives participants a challenging obstacle in which they must persist to solve the game. The objective of the game isn’t to solve the Traffic Jam, but to teach youth about persistence and the benefits of having a growth mindset when faced with challenges.



**The goal:** Give youth the opportunity to see how having a growth attitude toward challenge can help them persist during difficulty.

**The challenges:** Although 4-H emphasizes personal growth and reflection (e.g., youth writing about their experiences in their record book), there are many project leaders and youth who emphasize external rewards (e.g., winning at the County Fair). This is one of the greatest challenges for 4-H. Given that 4-H’s mission is to help youth thrive and that staff, project leaders, and youth are all committed to this mission, we believe that we can create a paradigm shift through teaching about the benefits of having a growth mindset and focusing on effort and persistence.



**The result:** Youth, on average, did not significantly change in their growth mindset from pre-Thrive to post-Thrive. Although there was no change found overall, 31% of youth showed positive development.

**31% of youth increased their Growth Mindset at least ¼ of a standard deviation.**

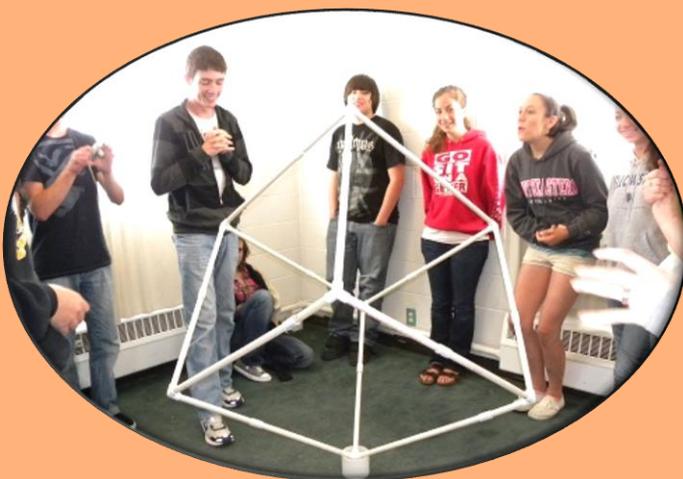
Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N= 138.

**Future directions:** We will review the interviews with youth and project leaders and note which growth mindset messages made the most impact (i.e., the messages that are mentioned the most). In addition, videos of project meetings are being coded and exemplars will be identified to use for future trainings. Finally, videos and results from a randomized-controlled trial with 4-H partnered afterschool programs (in which external rewards might be emphasized less) will be compared with the 4-H community club program results to gain further insight into effective delivery of growth mindset messages. See the Future Directions for a more detailed discussion about the videos and the randomized-controlled trial.



## Goal Management

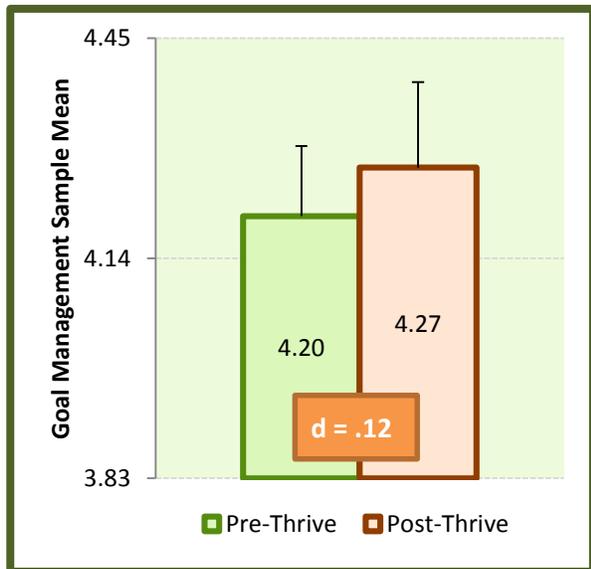
**The task:** Youth were taught the three steps of goal management: *Goal selection*, *Pursuit of Strategies*, and *Shifting Gears* (GPS). Youth then participated in challenging activities followed by discussion of and reflection on how they applied what they learned about GPS.



Youth participate in the “Puzzle Cube” activity, one of the favorite activities among youth. This activity challenges youth to build a cube with pre-cut PVC pipe. Here, youth are reflecting on their progress and discussing the next step in reaching their goal.

**The goal:** Give youth the opportunity to collaborate to solve a problem, learn about strategies, be persistent to reach a goal, and know when to change goals.

**The challenges:** We may expect that there would not be any growth in goal management due to ceiling effects because 4-H has a long history of teaching and providing experiences related to goal setting and management. The increase shows that even though 4-H already promotes goal management training and support for project leaders, an intentional focus on goal management can still lead to growth.



**The result:** Youth, on average, showed no significant changes in goal management skills, but we do see a percentage of youth who increased in these skills.

**43% of youth increased their Goal Management Skills at least ¼ of a standard deviation.**

Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N= 133.

**Future directions:** Continue to give youth opportunities to learn about setting goals, strategies to reach those goals, and reflection on their goal management process and skills. Additionally, the current measure of goal management is in the form of a rubric. This may not be the strongest measure for assessing goal setting, pursuit of strategies, and shifting gears. Although we found effects of *4-H Thrive!* on goal setting using the rubric, we believe that we will find stronger effects and will be able to look at G, P, and S separately using the Youth Selection Optimization and Compensation scale (Freund & Baltes, 2002; Gestsdóttir & Lerner, 2007; Zimmerman, Phelps, & Lerner, 2007), which we are now including in our study. See the Future Directions for more information regarding the measurement of goal management.



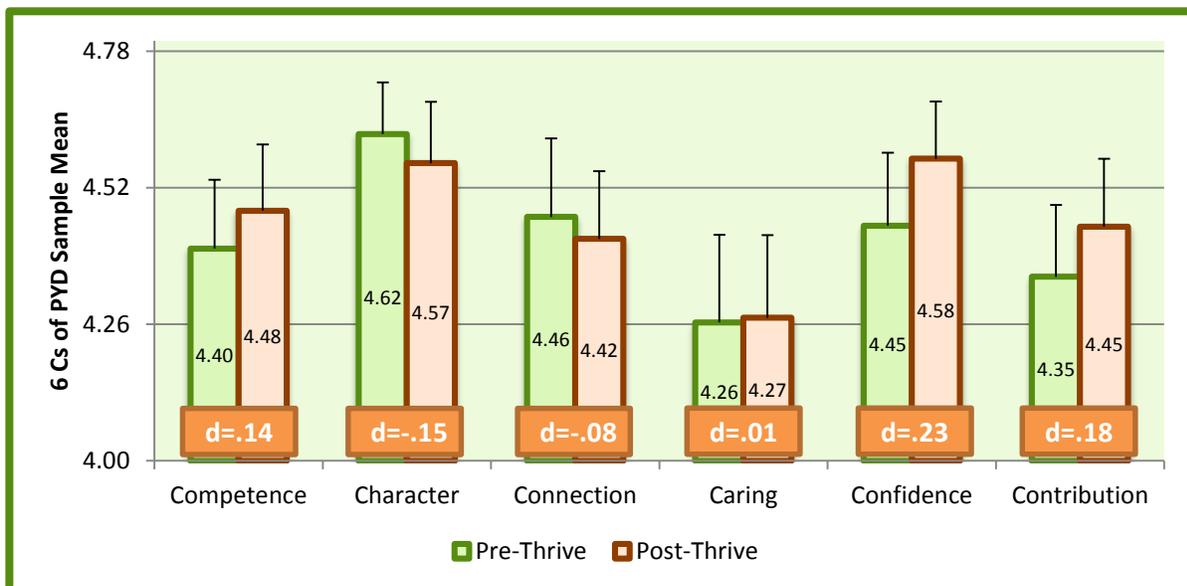


# Thriving

**The task:** Youth are given the opportunity to review the 6 Cs of positive youth development. Youth then read scenarios and guess which “C” the scenario illustrated, and the youth provided examples of their skills related to 3 of the 6 Cs and shared them with fellow members.

**The goal:** Help youth understand if they are thriving and practice self-reflection.

**The challenges:** This program component requires youth to practice self-reflection, a task that can be difficult even for adults. By continually giving youth opportunities to practice self-reflection, we believe we can increase youth’s development on these thriving indicators. Immediate change on the 6 Cs may be difficult to detect. Although self-reflection is emphasized in every lesson, specific discussions of the 6 Cs occurs at the end of the program year and youth may need more time to reflect and internalize these messages. Therefore, it is possible that changes in the 6 Cs will take more time to see.



Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N=67,60,59,63,56,63

**The result:** Youth, on average, showed no significant change in the 6 Cs. Only increases in confidence were significant ( $t(62)= 2.04, p<.05$ ). However, there were youth who showed positive development.

**25% of youth increased their thriving on one or more indicators at least ¼ of a standard deviation.**

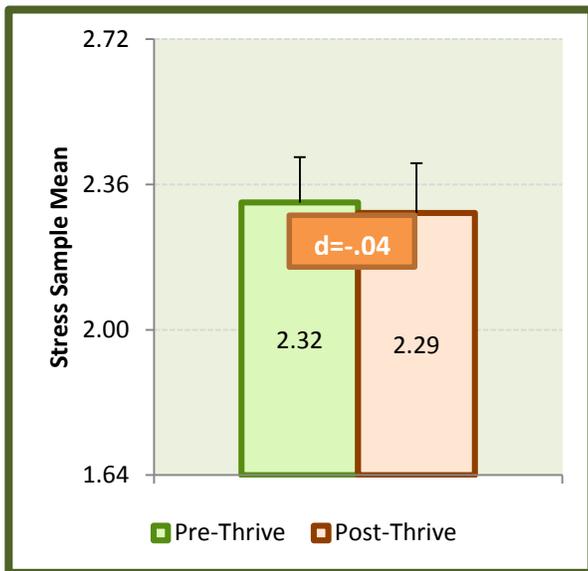
**Future directions:** Continually provide youth with opportunities to learn about the 6 Cs and identify the Cs in real-life examples, as well as provide youth with opportunities to practice self-reflection. **Similar to goal management, the Cs were assessed using a rubric. It may be difficult to capture individual differences with this measure. For example, “Connection” has poor reliability at Time 2 (see Appendix A); this could help explain the lack of findings for this measure.** See the Future Directions for more information regarding this rubric.



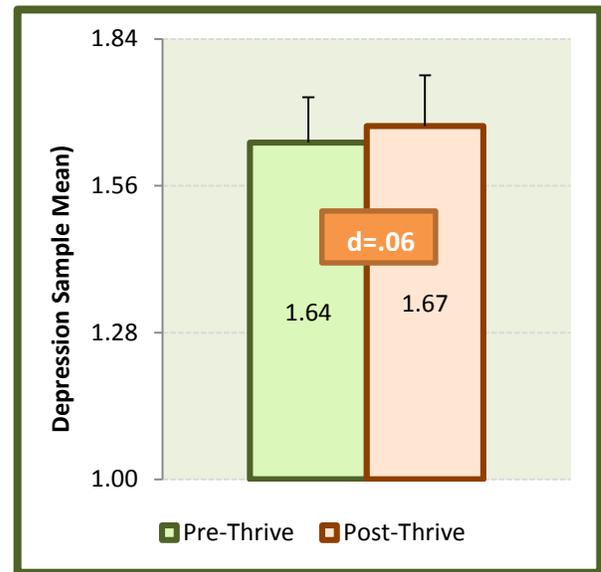
Youth show off posters of Thriving messages.



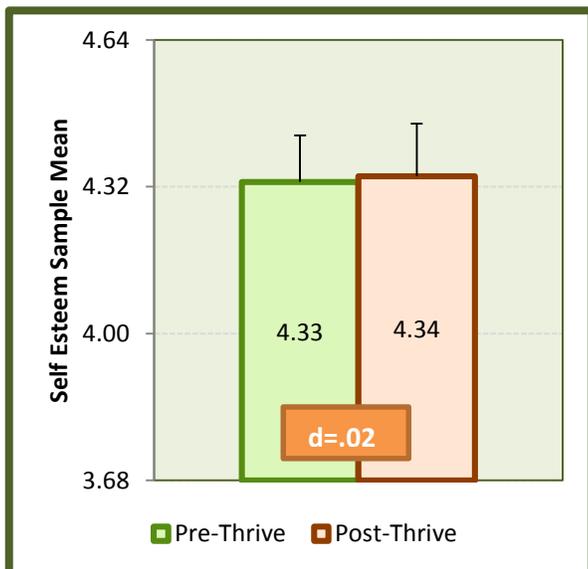
# ADJUSTMENT OUTCOMES



Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N= 151.



Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N= 150.



Note: Scale is ½ standard deviation. Error bars are 2\*standard error of the mean. N= 141.

**The goal:** To test whether youth experiences with *4-H Thrive!* leads to improved adjustment outcomes.

**The challenges:** Adjustment outcomes likely take a longer time to impact than the program components that are being directly taught, so changes may take longer to find.

**The result:** Youth, on average, did not show change in adjustment outcomes.

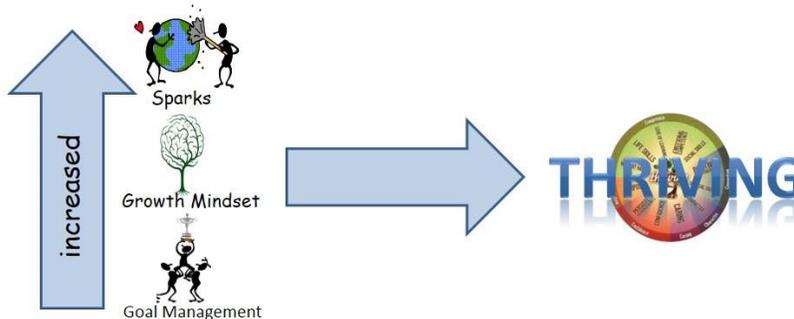
**Future directions:** We will continue to monitor these general adjustment outcomes to see whether greater change can be found after longer exposure to *4-H Thrive!*. In addition we will test for changes on other outcomes, such as academic performance, science literacy, healthy living, and citizenship.

**33% of youth showed improved adjustment outcomes at least ¼ of a standard deviation.**

## DO YOUTH WHO INCREASE IN ONE PROGRAM COMPONENT ALSO INCREASE IN OTHER PROGRAM COMPONENTS?

To answer this question, we conducted regressions with residual change in each component as an outcome and residual change in each other program component as the predictor. The residual change scores were calculated by saving the residual from a regression analysis in which the Time 2 score was predicted by the Time 1 score. We then used regression analyses to see if change in one program component predicted change in other program components.

We found that increases in youth’s feelings that 4-H helped them find their spark was related to increases in character ( $\beta=.35, p<.05$ ). Additionally, increases in youth’s feelings that 4-H helped them get better at their spark was associated with increases in overall thriving ( $\beta=.24, p<.05$ ), and more specifically, character ( $\beta=.31, p<.05$ ). We also found that youth who increased in growth mindset showed increases in overall thriving ( $\beta=.23, p<.05$ ). Youth with increased goal management also showed increases in overall thriving ( $\beta=.49, p<.05$ ). Specifically, goal management was related to increases in character ( $\beta=.42, p<.05$ ), competence ( $\beta=.28, p<.05$ ), confidence ( $\beta=.43, p<.05$ ), and contribution ( $\beta=.49, p<.05$ ).



## DO YOUTH WHO INCREASE IN PROGRAM COMPONENTS ALSO INCREASE IN ADJUSTMENT OUTCOMES?

To answer this question, we used the same regression analyses as above (change scores were calculated by saving the residual from a regression analysis in which the Time 2 score was predicted by the Time 1 score).

Here we found that increases in connection were related to decreases in stress ( $\beta=-.27, p<.05$ ). Preliminary results using a portion of Time 3 data shows that a second measure of thriving (Arnold, Nott, & Meinhold, 2012) and goal management (Freund & Baltes, 2002;



Gestsdóttir & Lerner, 2007; Zimmerman, Phelps, & Lerner, 2007) to be related to adjustment outcomes as well. Specifically increases in character ( $\beta=-.32$ ,  $p<.05$ ), connection ( $\beta=-.32$ ,  $p<.05$ ), competence ( $\beta=-.36$ ,  $p<.05$ ), and confidence ( $\beta=-.38$ ,  $p<.05$ ), and goal management ( $\beta=-.35$ ,  $p<.05$ ) were related to decreases in stress; and increases in confidence were related to increases in self-esteem ( $\beta=.30$ ,  $p<.05$ ). However, the reliability of these findings is unknown, as only 56 youth have longitudinal data using these measures. More data using these measures will be available next year.

### SUMMING IT UP

- We find that youth enjoyed the program and found it to be beneficial and meaningful.
- In general, we see increases in goal management, decreases in sparks and thriving, and no change in mindset.
- We see that increases in one program component is related to increases in other components.
- We see that increases in program components are related to better adjustment outcomes.
- *Take away message: the program is showing effects on positive youth development and we can have identified areas to focus on for the future.*

*“Do it. It’s fun and you learn more about your **spark**, and being safe in the environment and reaching your goals, and being with people who are positive and not negative.”*



# ROLE OF PROJECT LEADERS

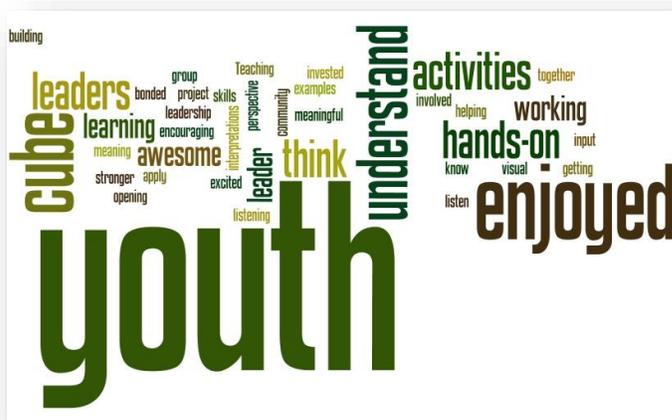


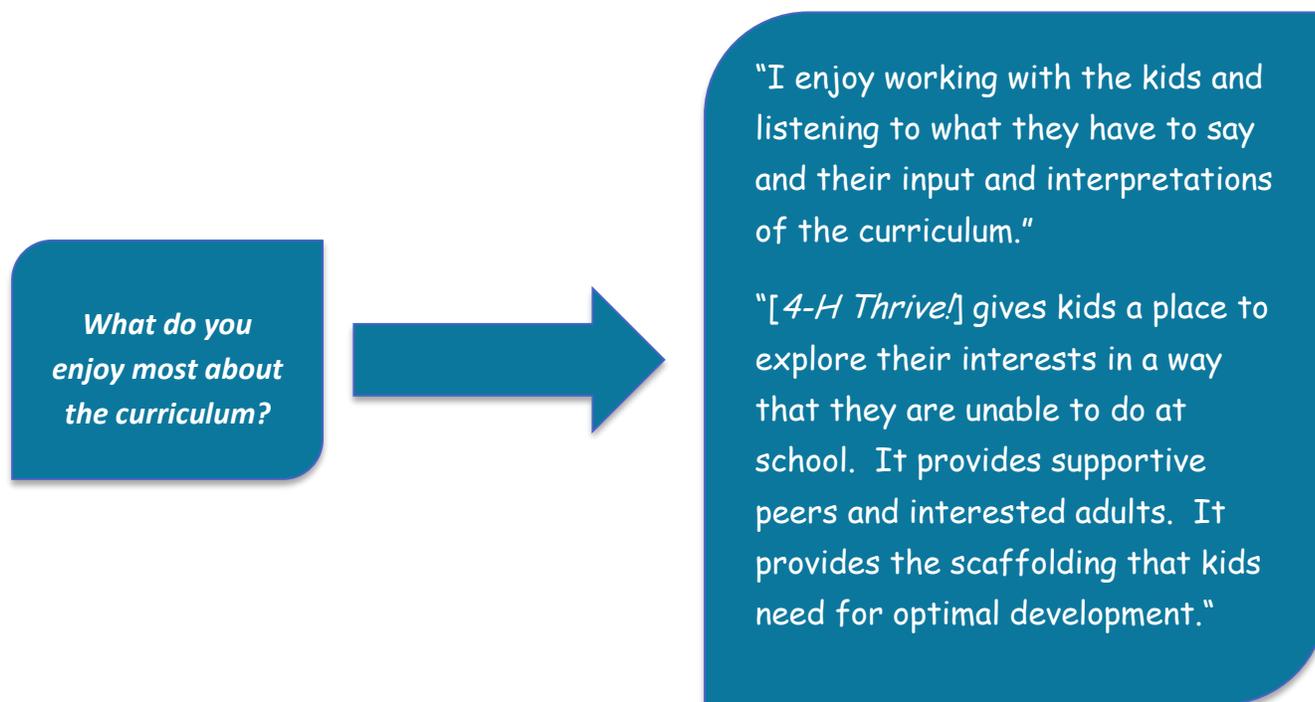
Project leaders are a crucial component of implementing the 4-H YDP. Perceptions about their ability to lead the program and work with youth can impact how they deliver the program and influence youth outcomes. 4-H has made project leader training a key component of the *4-H Thrive!* program. Taking information from the project leader and youth surveys, we found that project leader characteristics influence youth outcomes.

## Listening to project leaders

### What did project leaders enjoy most about leading *4-H Thrive!*?

Project leaders were interviewed about their experiences leading *4-H Thrive!*. Their answers to the question “**What do you enjoy most about the curriculum?**” are shown below in a word cloud displaying the most frequently used words. Words in larger font were mentioned more often than words in smaller font. The most common word was “youth”, something all project leaders have in common – a passion for working with youth. Similar to the youth word cloud, there are several interactive words, such as “learning,” “activities,” and “hands-on.” Below the word cloud are a few example responses to this question as well.





### Would project leaders recommend 4-H Thrive! to others?

Fourteen project leaders were interviewed via telephone about their experience leading 4-H Thrive!. When asked "Would you tell other adults that they should volunteer to be a project leader for 4-H Thrive!?" **93% of 4-H Thrive! leaders said yes.** Below are some example responses:

- "Yes I definitely would because it's a good program with good bones and good intentions."
- "I do tell other adults that they should because it's a good program and a worthwhile topic, and something that our organization needs."
- "I would and I have because it's a great opportunity to have an impact on our young leaders."

When asked "Would you lead 4-H Thrive! again?", fifty-seven percent said they would. The biggest roadblock to leading the program was time and youth scheduling conflicts. Some leaders were also interested in leading 4-H Thrive!, but for a younger age group. These leaders expressed interest in leading *iGrow*, designed for 9-12-year-olds, rolling out in 4-H clubs in Fall 2014.

## Testing project leader impacts

### Do project leader characteristics influence youth's outcomes?

*When project leaders believe in 4-H Thrive! and have better skills as a volunteer....*

*....youth are better able to find and develop their spark...*

*....have better goal management skills...*

*...and*



To answer this question, we used the residual change scores described earlier. Using regression analyses we examined whether Time 1 project leader characteristic scores were related to change scores in youth program components and adjustment outcomes.

We found that when project leaders have greater program buy-in and skills at Time 1, youth show increases in feeling that 4-H helped them find their spark (buy-in  $\beta=.25$ ,  $p<.05$ ; skills  $\beta=.21$ ,  $p<.05$ ) and develop their spark (buy-in  $\beta=.22$ ,  $p<.05$ ; skills  $\beta=.21$ ,  $p<.05$ ). This is a particularly important finding given that, overall, youth did not report increases in these critical aspects of sparks. If we can increase the number of volunteers who buy-in to the program and feel confident in their skills, then we will be more likely to be able to detect changes in sparks. Additionally, greater volunteer skills were related to increases in goal management ( $\beta=.31$ ,  $p<.05$ ) and thriving ( $\beta=.31$ ,  $p<.05$ ). These findings provide valuable information that can be used to improve training and as a result increase youth outcomes. We believe that the findings presented in this report can be used to help increase buy-in of the project leaders.

**Do project leaders become better Spark Champions, as reported by youth?**

Yes! At Time 1, **55.4%** of youth said that they have a Spark Champion in 4-H. At Time 2, this increased to **90.8%!**

### SUMMING IT UP

- Project leaders enjoyed delivering the program and enjoyed watching youth develop through program involvement.
- Project leaders would lead *4-H Thrive!* again and recommend that other adults lead it as well.
- Enthused and confident project leaders help youth experience greater positive development outcomes.
- *Take away message: Project leaders, their buy-in and skills, are crucial to youth development.*

## FUTURE DIRECTIONS

### Programmatic Future Directions

Below are ways we are monitoring program delivery and collecting qualitative and quantitative data that can be used to make revisions to the curriculum, training, and implementation of *4-H Thrive!*.

#### ➤ Monitor Implementation

We will review videos of project meetings that have been collected and find exemplars to use for training. For example, the videos will be coded for: (1) areas of the curriculum project leaders struggle with the most, as well as are most proficient; (2) youth participating and engagement; (3) youth and volunteer interactions; and (4) which portions of the curriculum were adhered to the most. These videos will be used to understand how the *4-H Thrive!* messages are being delivered, areas of confusion or misinformation, and how the youth are responding to program involvement, all of which can be used to inform future trainings. In addition, in the randomized-controlled trials videos and surveys from the adults and youth in the videos are being collected. The videos will be coded for all of the above and used to test whether higher quality delivery and engagement is related to increased changes in the program components.

We are also collecting fidelity data from project leaders. At the end of each lesson, project leaders are asked to send in a pre-addressed, pre-stamped postcard with information about the lesson. This information includes names of those present, which parts of the lesson were completed at the meeting, at home, or not

completed, and whether there were any modifications made. Fidelity cards were added to the curriculum in 2013. Currently we are collecting youth data so that we test whether higher fidelity is related to greater pre-/post-program changes for youth. These data will be available for analysis in 2014. Below we summarize what we know about program delivery based on the fidelity cards collected up to this point.

We have collected fidelity information from 33 *4-H Thrive!* clubs. Fidelity was coded for level of implementation. Each lesson consisted of three sections: **iexplore (a hands on shared experience about the topic)**, **ireflect (internalize and personalize what is learned)**, and **istretch (apply what is learned by watching a short video and completing an activity between meetings)**. Project leaders reported, for each section, whether they did not complete the task (coded as 0), completed part of the task (coded as 1), or completed all of the task (coded as 2). Using these codes, we calculated a mean score for each task within a lesson. Mean scores of each section by lesson are presented in Table 1. Overall, we see:

- “Connections”, “Light Your Spark,” and “Flex Your Brain” lessons have the highest fidelity.
- The “Reach Your Goals B” lesson, in which youth learned about pursuit of strategies and shifting gears, has the lowest fidelity across the three sections .
- Fidelity tended to be highest for iexplore, lowest for istretch, and in between for ireflect.

Overall, fidelity was high for iexplore. The lower fidelity for the 2<sup>nd</sup> part of the goal management lesson might be a result of the two lessons being delivered during one longer project meeting instead of across two meetings. It might have been difficult to keep youth's attention and complete all parts of the lesson when attempted as one long meeting. Similarly, we see higher fidelity for iexplore, the 1<sup>st</sup> part of the lesson, and lowest fidelity for istretch, the last part of the lesson. This could be because of time constraints, or perhaps project leaders do not feel that they are equipped to help youth take the lesson to the next level with the concept, and instead skip it or tell youth to complete this portion at home. The fidelity for iexplore lessons related to the 6 Cs ("Connections", "Am I Thriving Now") have the highest fidelity. When we have more fidelity data we can test whether lessons with higher fidelity show the greatest change. We predict this would be the case because youth will likely have a deeper understanding of lessons with higher fidelity and will likely have more time to explore related thoughts and feelings. In the future we will solicit feedback from project leaders related to *why* they are not completing some of the lessons to help us better understand the impact of fidelity and interpret our findings.

Table 1. Means for each lesson section.

Lesson	N	Mean		
		iexplore	ireflect	istretch
Safety	22	1.82	1.82	1.55
Connections	31	2.00	1.82	1.81
Sparks	29	1.93	1.93	1.59
Reach Your Goals A	25	1.96	1.84	0.12
Reach Your Goals B	17	1.76	1.65	0.94
Flex Your Brain	19	1.90	1.90	1.70
Am I Thriving Now (The 6 Cs)	18	2.00	1.89	1.28
Celebrate!	16	1.81	1.69	--

Note: Range = 0 -2. There was no istretch for the "Celebrate!" lesson.

Another way to examine the fidelity data is to look at the percent of clubs that completed none, some, or all of each lesson. Table 2 shows that fidelity was generally higher in the earlier lessons, and lessons 4 (Reach Your Goals A) and 5 (Reach Your Goals B) had the lowest fidelity. This information can assist us in reformatting the lessons or facilitation guidelines for project leaders. Again, it is important for us to gather more qualitative data to assess why some lessons have lower fidelity and test whether the lower fidelity is related to less change in program components.

Table 2. Lesson Fidelity

Lesson	N	% of responses			Mean
		None	Some	All	
Safety	22	9.1	24.3	66.7	1.73
Connections	31	0.0	29.0	71.0	1.88
Sparks	29	0.0	37.9	62.1	1.82
Reach Your Goals A	25	0.0	96.0	4.0	1.31
Reach Your Goals B	17	0.0	70.6	29.4	1.45
Flex Your Brain	19	0.0	26.4	73.7	1.84
Am I Thriving Now (The 6 Cs)	18	0.0	55.6	44.4	1.72
Celebrate!	16	6.3	93.8	0.0	1.17

Note: "None" indicates the project did not complete the lesson, "Some" indicates the project did some of the lesson, and "All" indicates that the project reported completing all parts of the lesson.

Finally, from these fidelity cards we will be able to assess dosage, or how much of the program a youth receives. We currently do not know what intensity, frequency, or duration of the content is ideal for youth to show increases in the components and outcomes. Gathering information about the number of lessons a youth receives, combined with the fidelity of that lesson, can help inform us about the ideal dosage for youth to get optimal results from program participation.

➤ **Revise training as needed**

After reviewing the project videos, fidelity cards, and interviews of youth and project leaders the 4-H Leadership Team will adjust training to strengthen understanding and delivery of key messages.

➤ **Revise curriculum as needed**

Feedback is being sought from youth, youth and adult project leaders, and staff regarding what worked well and what difficulties arose with the curriculum. Through this feedback, 4-H and the Thrive Foundation for Youth can

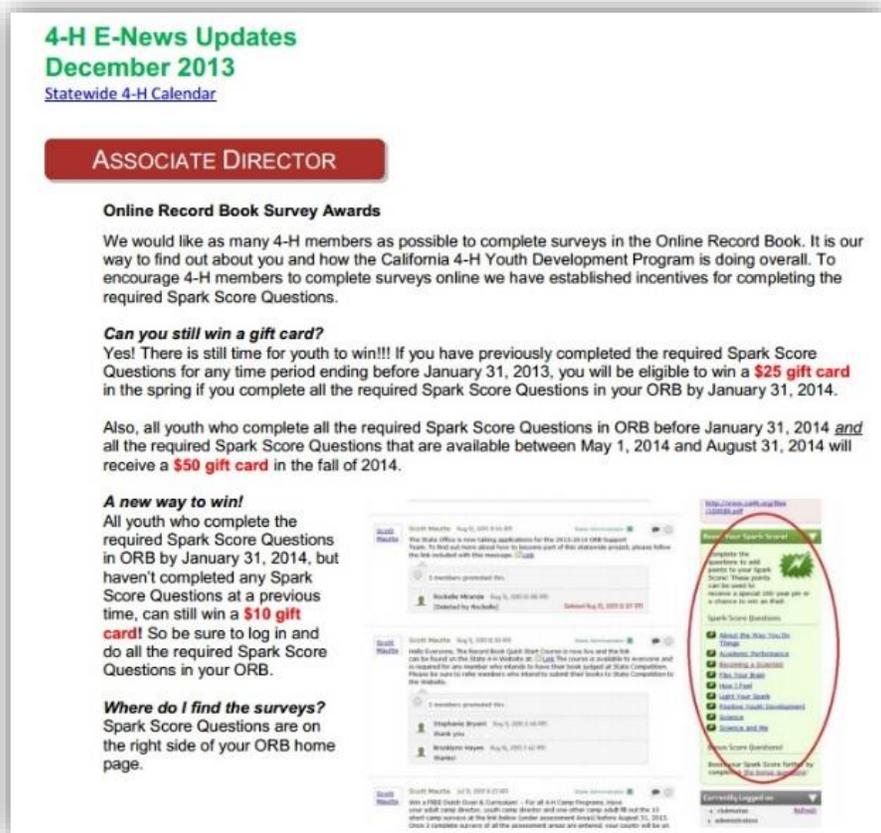


gain insight into the positive attributes and the challenges of the Thrive curriculum. The 4-H Thrive! Leadership Team will then work with the Thrive Foundation for Youth to adjust curriculum or content as necessary. One way we have already begun to do this is through the

youth and project leader interviews (see Results). We asked youth and project leaders to provide feedback on the *4-H Thrive!* curriculum, what they liked, what they thought could be improved, and what they would tell others about the program. This information will be used to inform future versions of the curriculum and to help us understand how we can better support our project leaders in their *4-H Thrive!* efforts.

➤ **Increase outreach and awareness**

The *4-H Thrive!* Leadership Team has introduced incentives for youth to complete surveys within the Online Record Book (ORB), such as entering youth names into drawings to win gift cards or iPad minis. In addition, statewide staff are continuing to promote the ORB through e-mail announcements, newsletters, and during workshops and conferences. The *4-H Thrive!* Leadership Team will continue to strategize methods to increase youth participation in the ORB and completing Thrive surveys. Further, the Leadership Team is working to develop fact sheets for county directors, project leaders and youth (as well as potential project leaders and youth) to inform these populations about what *4-H Thrive!* is, the impacts of the program, and how they can get involved.



➤ **Looking ahead to Time 3**

*4-H Thrive!* youth have made gains, but greater gains are expected over time. That is, greater behavioral changes are expected to occur over time as youth explore, practice, and grow in the Thrive Theory of Change. Child and youth development does not necessarily occur in a linear fashion (Siegler, Adolph, & Lemaire, 1996), which means that youth are likely to become more aware of and internalize specific ways of thinking and continue to experience

growth across different aspects of their life over time. Therefore greater changes are likely to be found using Time 3 data.

### Benefits to the Thrive Foundation for Youth

- Feedback on the best practices for delivering Step-Up-2-Thrive concepts in group settings.
- Feedback on the best practices for training adults to effectively deliver Step-Up-2-Thrive concepts.

## Years 4 and 5 Implementations

### ➤ Expanding the curriculum

Years 1, 2 and 3 provided many opportunities for 4-H to learn and grow. We are pleased to be able to provide this initial evaluation of Step-Up-2-Thrive, as delivered through the 4-H club program. Years 4 and 5 have several exciting additions to the *4-H Thrive!* program. One of these additions is the curriculum focus on Science, Engineering, and Technology (SET) in Year 4. The goals of this focus are to:

- help cultivate positive attitudes and aspirations towards SET,
- improve youth engagement in SET,
- provide opportunities for youth to develop SET-related skills, and
- help you apply their SET learning in their community.

This curriculum is more applied and hands-on than previous years, and has generated excitement from both youth and project leaders. In Year 5, the curriculum will focus on healthy living. The goals of this curriculum are to:

- help youth increase their physical and emotional health,
- decrease risky behaviors, and
- have more positive relationships and an increased social network.

We have embedded SET and healthy living lessons into the *4-H Thrive!* curriculum because we believe that this content will be more effective in producing desired outcomes when delivered within a positive youth development framework. For example, our society is not producing enough new scientists and there are many new, and old, programs designed to help make science fun and exciting to youth. We believe that fun messages alone are not sufficient to engage youth. Youth who feel they are not able to learn science, feel science is not related to their spark, and are not able to set and accomplish goals for science-related tasks are

unlikely to benefit from interventions that tell them science is fun and important. We believe that through SET curriculum combined with *4-H Thrive!* we can have a greater impact than either curriculum alone. Similarly, our society is suffering from a lack of healthy living styles and programs aimed at changing behavior seem to have limited success. We believe that helping youth develop sparks related to healthy living, set and achieve healthy living goals, and understand that they can change their behavior will have greater impact than current programs that do not include these positive youth development messages.

➤ **A randomized-controlled study**

In Year 4, we are implementing a randomized-controlled trial (RCT) in afterschool programs in four counties. Half of the programs are randomly assigned to Step Up to Leadership, a national 4-H leadership curriculum, and half of the programs will deliver iGrow, a version of *4-H Thrive!* designed for youth ages 9-12 years. This RCT offers several benefits to examining the effects of *4-H Thrive!* on youth outcomes. The RCT allows us to control for selection effects, meaning that differences we find between Step Up to Leadership and iGrow can be attributed to program participation. In addition, the afterschool sample is diverse and provides us with the opportunity to examine the effects of *4-H Thrive!* outside of the 4-H population represented in the club program and in a different delivery mode with youth are not participating in 4-H.

Through these deliveries we will be able to answer critical questions regarding the potential of Step-Up-2-Thrive and *4-H Thrive!* to positively impact youth. Specific questions that will be addressed with data from Years 4 and 5 are:

1. Are youth who receive iGrow more able to identify a spark than youth who receive Step Up to Leadership?
2. Do youth who receive iGrow have more of a growth mindset than youth who receive Step Up to Leadership?
3. Do youth who receive iGrow have better goal management skills than youth who receive Step Up to Leadership?
4. Do youth who receive iGrow have better adjustment outcomes compared to youth who receive Step Up to Leadership?
5. Does participation in *4-H Thrive!* increase youth's interest, engagement, and confidence in SET?
6. Does participation in *4-H Thrive!* increase youth's health knowledge and behaviors?

### Benefits to the Thrive Foundation for Youth

- A randomized-controlled trial is the gold standard for program evaluation and will allow for **definite, causal conclusions** about the **impact of Step-Up-2-Thrive on youth outcomes.**
- The Science, Engineering, and Technology focus and Healthy Living focus will demonstrate the impact of Step-Up-2-Thrive on other socially important outcomes, such as science ability, interest, engagement, and confidence and knowledge of healthy behaviors.

### Using Data to Help Develop a Model of Thriving

The California 4-H Youth Development Program has contributed new curriculum and activities and initial data, and we will contribute valuable randomized-controlled trial data. These contributions can be helpful for recruiting and establishing new partnerships and demonstrating worth to key stakeholders. These are important and California 4-H is committed to continuing to provide these services. In addition, we feel that we can contribute to moving the field of positive youth development forward. For example, we can contribute to building upon current models of thriving by providing insights from patterns in data, helping translate theoretical models into testable models, and testing competing models. Below we provide some examples of what we have learned from our initial data.

In addition to the challenges discussed above, we will discuss a few broader issues and suggestions related to helping us develop and inform a theory-driven, testable model. These suggestions are broadly divided into “measurement” and “analyses.” We provide examples and future steps for these issues.

#### ➤ Measurement

**The challenge: One challenge we found in testing the effects of 4-H Thrive! was measurement, particularly in relation to sparks. In developing our change model we struggled with capturing meaningful changes in sparks.** Our first suggestion in testing theoretical models of thriving is to reflect on the constructs theorized to play a role in thriving and ensure that the measures being used assess individual differences in that construct. To understand processes of development we need to have reliable and valid measures that capture a range of individual differences.

**Example:** The concept of sparks makes sense in the theoretical model, but the current measure and conceptualization of “sparks” might not be tapping into the intended construct put forth by the Thrive Foundation for Youth. We found it challenging to identify change in sparks because the primary variable is essentially a yes-no question regarding whether the youth has a spark. Moving from no spark to having a spark may represent critical growth, but it might miss the feelings and beliefs youth go through during this transition. In addition, it equates youth who might have critical differences. For example, Youth A might answer yes to having a spark and say her spark is music because it is fun to listen to music, whereas Youth B might answer yes and say she has a spark and it is music because producing music makes her feel vibrant and alive and she especially loves using music to make others feel good. The existing spark measures cannot differentiate between these two youth. And, consistent with this, we found few effects related to change in the sparks variable.

We propose that a measure of **passion** would capture the essence of having a spark while also providing a way to capture individual differences in the core spark construct, and change in these individual differences. Having a spark is the fuel for youth change in goal management, mindset, and thriving, but the current measure of sparks might not capture individual differences in this fuelling role. In examining the research on passion we found that Vallerand et al. (2003) define a passion as a **“strong inclination toward an activity that people like, that they find important, and in which they invest time and energy”**, and explain that passion activities get people to wake up in the morning, fuel motivation and give meaning to peoples’ everyday lives. These definitions are remarkably similar to the ones we provide youth for describing what is a spark when they are unfamiliar with the term. Measuring passion in youth can potentially provide us with more power to detect individual differences and show, through data, the potentially powerful role of sparks (conceptualized as passion) on the Theory of Change.

Another measurement issue to consider is that Years 1-3 utilized rubrics to assess goal management and the 6 Cs. These rubrics can be difficult to understand and use. Examination of the GPS measure showed that, when broken down by the three components, the largest increase was for “G” (goal setting; effect size of Time 1 to Time 2 difference = .20). This is not surprising given that the rubric for “goal setting” is the easiest concept for youth to understand. And, the lack of change for pursuit of strategies and shifting gears might be due to trouble understanding and using the rubric. In Year 3, we added another measure of both goal management (Freund & Baltes, 2002; Gestsdóttir & Lerner, 2007; Zimmerman et al., 2007) and the 6 Cs (Arnold, Nott, & Meinhold, 2012). Analyses are currently being conducted to examine programmatic effects on these measures.

Another issue related to appropriate measurement is establishing measurement invariance (Bryne, 2012) between groups or over time. Measurement invariance indicates that the underlying construct being measured is the same across time and groups (e.g., age, gender). This is critical if comparisons are made because it demonstrates that the same construct is being measured over time and across groups. We are currently examining our measures for invariance. For example, preliminary analyses show that our measure of mindset holds strong (or scalar) invariance across Time 1 and Time 2, indicating that the measure is tapping into the same construct over time. These findings support the use of this measure longitudinally.

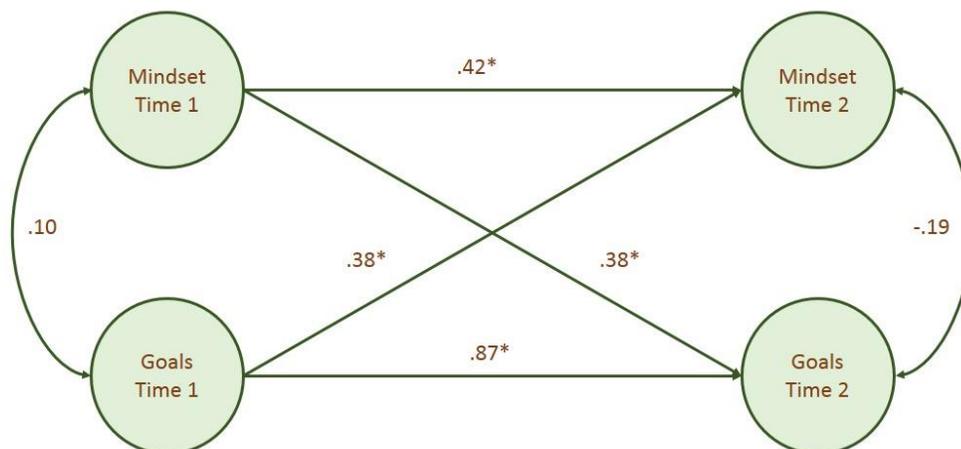
**What we've learned and where to go from here:** What we have learned to date in our evaluation process is that the current measure we are using for sparks is not capturing individual differences, thus creating a gap between the theoretical and testable models. We recommend using measures of passion in future data collections. Additionally, we recommend using other measures of goal management and thriving. Further, measurement invariance analyses with more data points and with all measures should be conducted to establish that all our measures are appropriate for longitudinal use.

#### ➤ **Analyses**

**The challenge:** Our second suggestion related to testing models of thriving is to test longitudinal relations to estimate the order of impact of the components of thriving (e.g., using cross-lagged analyses). Determining the order of impact will help us to understand the relationship between variables: How they work together and which variable may lead to changes in another variable. These findings would provide a better understanding of how the program components interact, and would help us learn whether we need to teach youth about these components in a particular order. Ultimately, these analyses can help us refine the model of thriving.

**Example:** Currently, we have some preliminary findings regarding order effects. For example, mindset and goal management skills showed a reciprocal relationship, such that mindset at Time 1 was related to increases in goal management at Time 2, and goal management at Time 1 was related to increases in growth mindset at Time 2 (see Figure 1). This suggests that fostering a growth mindset might help to also foster better goal management skills and vice versa. This reciprocal relationship informs us that given the influential nature of these concepts on one another there might be an advantage to explicitly linking these lessons. It also suggests that a theory of change might include this reciprocal relation. However, these findings are preliminary and only provided for illustration. More data is needed before strong conclusions can be made.

Figure 1. Crosslag model of mindset and goal management.



$\chi^2 = 301.09$  (281)  $p = .20$ ; CFI = .95; RMSEA = .02. \* $p < .05$ .  
Standardized results shown. Measurement model not presented.

**What we've learned and where to go from here:** What we have learned from these analyses is that tests of pieces of the theoretical model can help us better understand the influence of, and relation between, the program components. These findings can then provide valuable information for building a testable theoretical model. In addition to testing relations between program components we can use experiments to understand causal relationship and identify the best way to impact each construct. For example, a few 4-H clubs at a time could implement different parts of the *4-H Thrive!* curriculum to test the most effective ways to impact each program component. Doing this can help us isolate some of the effects, and provide an opportunity to learn which pieces of the program work best together.

### Benefits to the Thrive Foundation for Youth

- Data, analysis, and recommendations regarding measurement of key program components.
- Data, analysis, and recommendations regarding building a testable model of the Theory of Change.
- Tests of alternative models of change, different types of delivery, and causal ordering of program components.

## CONCLUSION

These future directions will improve the integration of Thrive programming into 4-H, and facilitate project leaders' awareness of Thrive as a natural component of 4-H rather than a distinct program or project to implement. We believe that the more project leaders deliver a consistent, and fully integrated, *4-H Thrive!* program the more gains that youth will show in measures of Thriving.

Additionally, these findings help contribute to the body of knowledge about the theory of change and how the various program components are related to each other and key adjustment outcomes. More work is needed in this area and California 4-H looks forward to continuing to work with the Thrive Foundation for Youth and other key partners to conduct research to better understand the process of thriving with the goal of developing a testable model, and ultimately providing best practices for helping youth thrive.



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## Appendix A-Measures Information

<b>Sparks (Benson, 2008)</b>	<b>Time 1</b>		<b>Time 2</b>	
<b>Response options: 3= Definitely!, 2= I think so, 1= No.</b>	% "Definitely"	% "I think so"	% "Definitely"	% "I think so"
1. Do you have a spark?	77.6	22.4	74.5	18.5
<b>Response options: 2=Yes, 1=No.</b>	% "Yes"		% "Yes"	
1. Do you have a caring adult or peer who helps you explore and develop your spark in 4-H?	57.3		91.8	
<b>Response options: 5=A lot, 4=Quite A Bit, 3=Somewhat, 2=A Little Bit, 1=Not At All.</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
1. 4-H helped me find my spark(s).	3.26 (1.22)	--	3.09 (1.34)	--
2. 4-H program helped me get better at my spark.	3.32 (1.20)	--	3.26 (1.27)	--
<b>Response options: 5=Very Often, 4=Often, 3=Sometimes, 2=Rarely, 1=Never</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
3. In 4-H, how often do you work to get better at your spark(s)?	3.36 (1.01)	--	3.23 (1.14)	--

Note: Items were analyzed individually.

<b>Mindset (Blackwell, Trzesniewski, &amp; Dweck, 2007)</b>	<b>Time 1</b>		<b>Time 2</b>	
<b>Response options: 5=Strongly Agree, 4=Agree, 3=Neither Agree nor Disagree, 2=Disagree, 1=Strongly Disagree.</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
1. You can learn new things but you can't really change your basic intelligence				
2. You have a certain amount of intelligence and you really can't do much to change it.	3.97 (.63)	.76	3.91 (.74)	.78
3. You can always greatly change how intelligent you are.				
4. No matter how much intelligence you have, you can always change it quite a bit.				

Note: An average of these items was created such that higher scores indicated more of a growth mindset.

Goal Management Skills (Bowers, 2011)	Time 1		Time 2	
Response options: 5=I work on this all the time and I'm excellent at it, 4=About half the time, I show initiative and skill at this, 3=I really want to get better at this, and I need my mentor's help, 2=I don't think this is important, but I'll try if my mentor makes me, 1=I don't do this.	Mean (SD)	Alpha	Mean (SD)	Alpha
1. Rate yourself on "choosing your destination"				
2. Rate yourself on "choosing goals that help other/community"				
3. Rate yourself on "breaking down long term goals"				
4. Rate yourself on "identifying relations among goals"				
5. Rate yourself on "sticking to a plan"				
6. Rate yourself on "seizing the moment"				
7. Rate yourself on "developing strategies"	4.20 (.57)	.87	4.27(.69)	.91
8. Rate yourself on "showing persistent effort"				
9. Rate yourself on "checking your progress"				
10. Rate yourself on "substituting strategies"				
11. Rate yourself on "seeking different help"				
12. Rate yourself on "emulating strategies of others"				
13. Rate yourself on "changing goals without feeling bad"				

Note: An average of these items was created such that higher scores indicated more of goal management skills.

<b>Thriving (Bowers, 2011)</b>				
<b>Response options: 5=I work on this all the time and I'm excellent at it, 4=About half the time, I show initiative and skill at this, 3=I really want to get better at this, and I need my mentor's help, 2=I don't think this is important, but I'll try if my mentor makes me, 1=I don't do this.</b>				
	<b>Time 1</b>		<b>Time 2</b>	
<b>COMPETENCE (5 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
1. Rate your academic competence.				
2. Rate your cognitive competence.				
3. Rate your social competence.	4.40 (.50)	.68	4.48 (.48)	.69
4. Rate your emotional competence.				
5. Rate your healthy habits.				
<b>CHARACTER (3 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
6. Rate your moral compass.				
7. Rate your integrity.	4.62 (.38)	.45	4.57 (.45)	.48
8. Rate your equal treatment of others.				
<b>CONNECTION (3 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
9. Rate your connection with family.				
10. Rate your connection with friends & peer groups.	4.46 (.56)	.64	4.42 (.48)	.26
11. Rate your connection with community.				
<b>CARING (4 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
12. Rate your sympathy.				
13. Rate your empathy.				
14. Rate your caring actions.	4.26 (.68)	.75	4.27 (.64)	.75
15. Rate your promoting of social justice.				
<b>CONFIDENCE (5 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>

16. Rate your overall confidence.				
17. Rate your confidence in school.				
18. Rate your confidence in physical appearance.	4.45 (.55)	.77	4.58 (.43)	.66
19. Rate your confidence in peer acceptance.				
20. Rate your confidence in an area of interest.				
<b>CONTRIBUTION (4 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
21. Rate your service to community.				
22. Rate your leadership roles.				
23. Rate your mentoring roles.	4.35 (.54)	.68	4.45 (.51)	.70
24. Rate your sense of positive purpose.				
<b>Thriving (24 items)</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
	<b>4.39 (.44)</b>	<b>.85</b>	<b>4.45 (.41)</b>	<b>.80</b>

Note: Note: An average of the items for each C was created such that higher scores indicated more of that C. An overall thriving score was created by averaging the scale scores of the 6 Cs; higher scores indicated more thriving.

<b>Stress (Cohen, Kamarck, &amp; Mermelstein, 1983)</b>	<b>Time 1</b>		<b>Time 2</b>	
<b>Response options: 5=Very Often, 4=Fairly Often, 3=Sometimes, 2=Almost Never, 1=Never.</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
1. In the last month, how often have you felt that you were unable to control the important things in your life?				
2. In the last month, how often have you felt confident about your ability to handle your personal problems?				
3. In the last month, how often have you felt that things were going your way?	2.32 (.69)	.64	2.29 (.76)	.78
4. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?				

Note: Reverse code items 2 and 3. An average of these items was created such that higher scores indicated more stress.

<b>Depression (Radloff, 1977)</b>	<b>Time 1</b>		<b>Time 2</b>	
<b>Response options: 4=Most or all of the time (5-7 days), 3=A lot of the time (3-4 days), 2=Some or a little of the time (1-2 days), 1=Rarely or none of the time (less than 1 day).</b>	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
1. During the past week, I was bothered by things that don't usually bother me.				
2. During the past week, I felt that I could not shake off the blues even with help from my family or friends.				
3. During the past week, I had trouble keeping my mind on what I was doing.	1.64 (.53)	.64	1.67 (.59)	.73
4. During the past week, I felt that everything I did was an effort.				
5. During the past week, I felt lonely.				

Note: An average of these items was created such that higher scores indicated more depression.

<b>Self-Esteem (Rosenberg, 1965)</b>	<b>Time 1</b>		<b>Time 2</b>	
	<b>Mean (SD)</b>	<b>Alpha</b>	<b>Mean (SD)</b>	<b>Alpha</b>
<b>Response options: 5=Strongly Agree, 4=Agree, 3=Neither Agree nor Disagree, 2=Disagree, 1=Strongly Disagree</b>				
1. I feel that I am a person of worth, at least equal to others.				
2. I feel that I have a number of good qualities.				
3. I feel I do not have much to be proud of.	4.33 (.60)	.73	4.34 (.68)	.85
4. All in all, I am inclined to feel that I am a failure.				

Note: Reverse code items 3 and 4. An average of these items was created such that higher scores indicated more self-esteem.

<b>Project Leader Buy-In (California 4-H)</b>	<b>Time 1</b>	
	<b>Mean (SD)</b>	<b>Alpha</b>
<b>Response options: 5=Strongly Agree, 4=Agree, 3=Neither Agree nor Disagree, 2=Disagree, 1=Strongly Disagree</b>		
1. I was able to explain the underlying theory of 4-H Thrive to others		
2. I believe 4-H Thrive was successful in helping youth achieve their full potential		
3. 4-H Thrive was engaging for youth		
4. I was able to teach 4-H Thrive well	4.01 (.67)	.90
5. 4-H Thrive fits with the values of the 4-H Youth Development Program		
6. I think 4-H Thrive is worthwhile		
7. Leading 4-H Thrive was meaningful to me		

Note: An average of these items was created such that higher scores indicated more buy-in.

<b>Project Leader Skills (Radhakrishna &amp; Ewing, 2011)</b>	<b>Time 1</b>	
<b>Response options: 5=I am very good at this, 4=I am good at this, 3=I am average at this, 2=I am below average at this, 1=I am not good at this.</b>	<b>Mean (SD)</b>	<b>Alpha</b>
	<b>4.01 (.54)</b>	<b>.86</b>
1. Managing conflicts between youth		
2. Listening to youth		
3. Making sure I'm easy to approach when a youth has a problem		
4. Helping youth to feel they are an important part of the 4-H program.	4.01 (.54)	.86
5. Demonstrating activities that are designed to help youth learn life skills, such as goal setting.		
6. Encouraging youth to take on leadership roles		
7. Conducting activities that are challenging to youth		

Note: An average of these items was created such that higher scores indicated more skill.

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## 4-H Thrive! Facts

The California 4-H Youth Development Program has partnered with the Thrive Foundation for Youth to develop a curriculum called *4-H Thrive!*. The curriculum is designed to help youth identify and develop their spark or inner source of motivation, develop a mindset oriented toward learning and growth, self-reflect on the indicators of thriving (character, caring, competence, confidence, connection, and contribution), and improve their goal management skills. Previous research has demonstrated that youth who possess these skills are more likely to thrive and less likely to engage in risky behaviors. The program, being delivered across the state, includes the *4-H Thrive!* curriculum and professional development for those implementing the curriculum.

In addition, youth completed baseline and post-program measures of the key components of the program and measures of thriving and well-being, and project leaders completed measures on their buy-in of curriculum and skills as a volunteer.

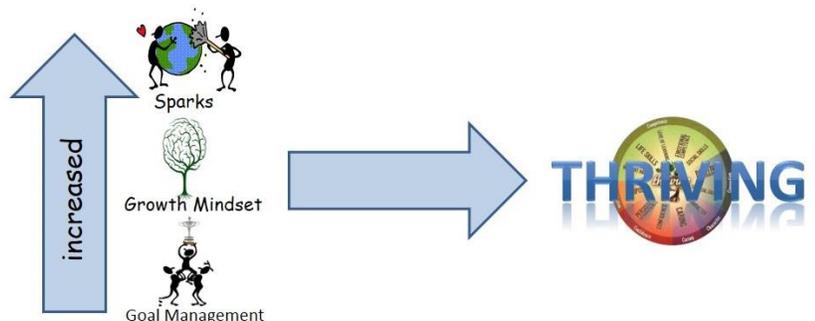
**529 adults** received curriculum-based leadership training

**5,242 youth** received Thrive messages during the 2010-11 and/or 2011-12 4-H year

**35 counties** have implemented Thrive curriculum

## 4-H Thrive! makes a difference!

The more youth felt that 4-H helped them find their spark the more they increased in character. And, the more youth felt that 4-H helped them get better at their spark the more they thrived. Other ways youth thrived was through increasing their growth mindset and goal management skills.



Thriving youth were also better adjusted: the more youth thrived the more their stress decreased and their self-esteem increased.

## Project leaders make a difference!

Project leaders who believed more in the efficacy of the program and felt more skillful in working with youth had youth who increased in their belief that 4-H helped them find and develop their spark. And, the more volunteers felt skillful in working with youth the more youth developed goal management skills and thrived.

We will use these findings to improve training and volunteer buy-in, and in turn increase youth outcomes.

*When project leaders believe in 4-H Thrive!  
and have better skills as a volunteer.....*

*...youth are better able to find and develop their spark...*



*...have better goal management skills...*



*...and*

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## What youth are saying about 4-H Thrive!

*"It helps you find **goals** for yourself, and makes you a better person."*

*"The **connections** you establish with your group and the amount of **knowledge** that you gain and the **leadership** that you get, and the **self-confidence** that it makes in you overcomes any other project that I've been in, any other leadership project in any aspect of my life, and it makes a **stronger, more confident, better leader.**"*

*"Do it. It's fun and you learn more about your **spark**, and being safe in the environment and reaching your goals, and being with people who are positive and not negative."*