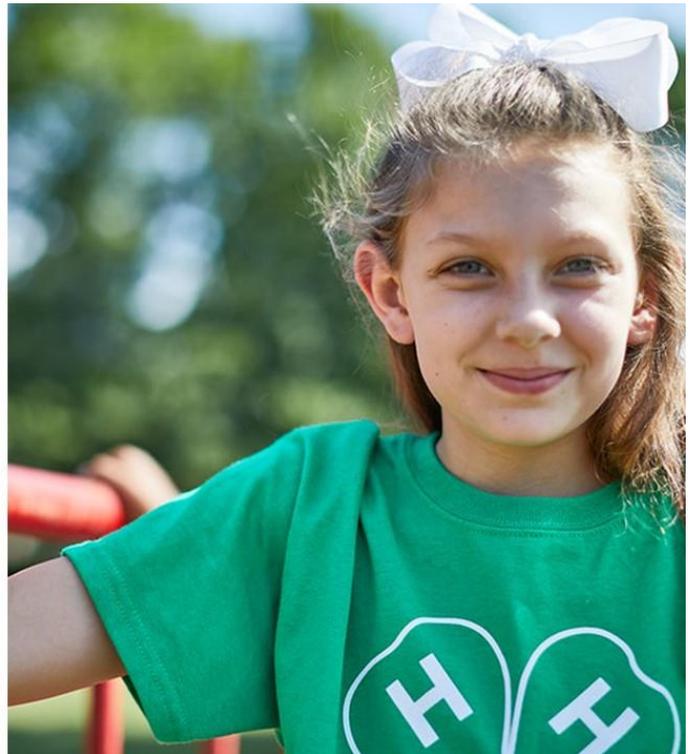




The 4-H Thriving Model Program Evaluation Instruments

Information and Scoring Guide

January 2022



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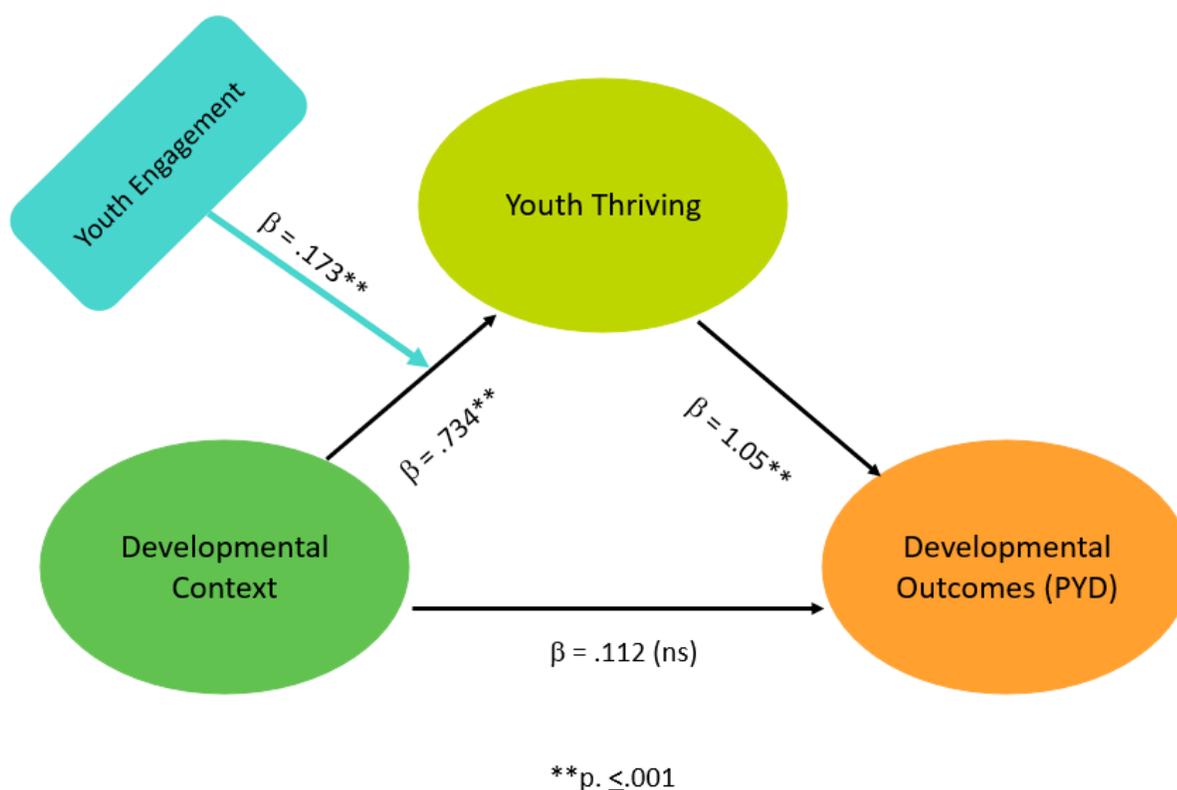
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Instrument Development

The evaluation instruments in this collection were derived from the *Mediating Effects of Thriving on Youth Development* studies (Arnold & Gagnon, 2019). The studies piloted and confirmed the measurement and structure of the 4-H Thriving Model of youth development. The model predicts the relationship between a high quality 4-H program (developmental context) on developmental outcomes is mediated by youth thriving. Furthermore, the relationship between developmental context and youth thriving is moderated by the level of youth engagement in the program. A diagram of this model with statistically significant β s from the pilot studies is presented in Figure 1.

Figure 1. The 4-H Thriving Model



Introduction to the 4-H Thriving Model Program Evaluation Instruments

There are four program evaluation instruments in this collection:

1. ***Developmental Context Instrument*** – measuring experience of youth sparks, sense of belonging in the program, and developmental relationships with adults. Additional items measure youth engagement in 4-H, age, gender, and race/ethnicity.
2. ***Youth Thriving Instrument*** – measuring seven indicators of thriving: (1) Growth mindset; (2) openness to challenge and discovery; (3) hopeful purpose; (4) pro-social orientation; (5) transcendent awareness; (6) positive emotionality; and (7) goal management (intentional self-regulation)
3. ***Developmental Outcomes Instrument*** – Measuring six developmental outcomes constructs: (1) Academic attitudes for success; (2) social competence; (3) personal standards; (4) connection with others; (5) personal responsibility; (6) contribution to others.
4. ***The Full 4-H Thriving Model Program Instrument*** – a combination of the first three instruments into one for those interested in evaluating all three aspects of the 4-H Thriving Model.

Recommended Use of the Instruments

The instruments in this collection are recommended for use in program evaluation efforts with youth ages 13 and older at the end of a 4-H program¹. The instruments are intended to measure group trends to understand the quality and impact of the program. *These instruments are not intended to be used for diagnostic purposes.* Both the *Youth Thriving* and *Developmental Outcomes* instruments are presented in a retrospective pre-test format, meaning that youth answer each item based on how they felt before the program, and how they feel after the program. While there is no pre-determined program length established for the valid use of these instruments, programmers should assess the relative ability of the program length and type to impact youth thriving, and thus developmental outcomes.

- The *Developmental Context* instrument is recommended for use at the end of any program where there is an interest in measuring the youth experience of a high quality developmental context, including short-term programs.
- The *Youth Thriving* instrument is recommended for use in programs where an intentional effort is placed on positive youth development in the program design, and sufficient time has elapsed for the program to have an effect on youth thriving.
- The *Developmental Outcomes Instrument* is recommended for use when enough time has elapsed to impact these developmental outcomes, such as in a multi-session program over several months, or a year-long 4-H program.

Scoring

- Each item is scored from 1 to 7: (1) Not true at all; (7) Very true
- Mean scores by case are calculated to standardize scores for each subscale

¹ The Developmental Context instrument can be used with youth age 10 and above, although assistance may be required to ensure youth are able to read and comprehend the items. Results should be interpreted with caution.

- Mean standardized scores are calculated across all responses
- Mean scores are compared pre-program to post-program across all responses for the *Youth Thriving and Developmental Outcomes*

PART ONE: Evaluating the 4-H Program Developmental Context

The developmental context instrument measures youths' experience of the three components that make up a high quality developmental context in youth programs: Sparks facilitation, belonging, and developmental relationships. Mean scores can be calculated for each component as well as an overall developmental context score.

Overall Developmental Context Score

Calculation: Sum of items 1- 20/20

Range: 1-7

Total Youth Engagement Scores can be recoded into categorical variables:

- (1) Very low quality experience = 1.0 to 2.2
- (2) Low quality experience = 2.3 to 3.5
- (3) Moderately quality experience = 3.6 to 4.8
- (4) High quality experience = 4.9 to 6.1
- (5) Very high quality experience = 6.1 to 7.0

Youth Sparks

Cronbach's Alpha = .88

Mean Sparks Calculation: Sum of items 1-4/4

Range 1 to 7

1. This program gives me the opportunity to explore something I really care about
2. I am passionate about the things I do in this program
3. I want to learn all I can about the topic of this program
4. 4-H is an important part of who I am

Youth Belonging

Cronbach's Alpha = .89

Mean Belonging Calculation: Sum of items 5-8/4

Range 1 to 7

5. I feel safe in this 4-H program
6. I feel supported by other kids in this 4-H program
7. I feel like I matter in this 4-H program
8. I feel welcome in 4-H

Developmental Relationships

Total Developmental Relationships Score

Calculation: Sum of Items 9 -20/12

Range 1 to 7

Confirmatory factor analysis (CFA) in the pilot studies revealed three sub-factors of the developmental relationship construct: (1) Caring adults; (2) challenging growth; and (3) youth-adult partnerships. Calculations of developmental relationships sub-factors are also possible.

Caring Adults

Cronbach's Alpha = .91

Range 1 to 7

Mean Caring Adults Calculation: Sum of items 9-12/4

- 9. Pay attention to me
- 10. Like me
- 11. Invest time in me
- 12. Show an interest in me

Challenging Growth

Cronbach's Alpha = .87

Mean Challenging Growth Calculation: Sum of items 13-16/4

Range 1 to 7

- 13. Help me see future possibilities for myself
- 14. Expect me to do something positive with my future
- 15. Stretch me and push me in new ways
- 16. Hold me accountable

Youth-Adult Partnership

Cronbach's Alpha = .95

Mean Youth-Adult Partnership Calculation: Sum of items 17-20/4

Range 1 to 7

- 17. Listen to my ideas
- 18. Treat me fairly
- 19. Take me seriously
- 20. Respect me

Youth Engagement²

Youth engagement is a moderator of the relationship between developmental context and youth thriving. Youth engagement is measured as an index, a composite of individual data points. In this case the youth engagement variable is computed as the sum of:

1. Number of years of 4-H participation (Item 21)
2. Level of involvement in 4-H during school year (Item 22)
3. Level of involvement in 4-H during summer (Item 23)
4. Engagement in 4-H opportunities at the county level (Item 24)
5. Engagement in 4-H opportunities at the state level (Item 25)
6. Engagement in 4-H opportunities at the national level (Item 26)

Youth Engagement Score Range = 6 to 42

Total Youth Engagement Scores can be recoded into categorical variables:

- (1) Very low engagement = 6.0 to 13.2
- (2) Low engagement = 13.2 to 20.4
- (3) Moderately engagement = 20.4 to 27.6
- (4) High engagement = 27.6 to 34.8
- (5) Very high quality experience = 34.9 to 42.0

² Calculating the effect of youth engagement in programs remains somewhat elusive across the PYD literature. The measurement used in the 4-H Thriving Model is based on the recognition that duration or dosage alone is not the best measure, but rather a young persons' duration, intensity, and breadth of experience in the program are all important aspects of engagement (Chaput, Little, & Weiss, 2004).

PART TWO: Measuring Youth Thriving

The youth thriving instrument measures a young person's thriving orientation across seven indicators: (1) Growth Mindset; (2) openness to challenge and discovery; (3) hopeful purpose; (4) prosocial orientation; (5) transcendent awareness; (6) positive emotionality; and (7) goal management (intentional self-regulation)

Mean scores can be calculated for each thriving indicator as well as an overall developmental context score.

Overall Youth Thriving Score

Calculation: Sum of items 1- 30/30

Range: 1-7

Total Youth Engagement Scores can be recoded into categorical variables:

- (1) Very low youth thriving = 1.0 to 2.2
- (2) Low youth thriving = 2.3 to 3.5
- (3) Moderate youth thriving = 3.6 to 4.8
- (4) High youth thriving = 4.9 to 6.1
- (5) Very high youth thriving = 6.1 to 7.0

Growth Mindset

Range 1 to 7

Cronbach's Alpha = .86

Mean Growth Mindset Calculation: Sum of items 1-4/4

1. No matter how intelligent I am, I can always improve my level of intelligence
2. I can get smarter by working hard at learning
3. If I keep working at something I will get better at it
4. It is possible to change how smart I am

Openness to Challenge and Discovery

Range 1 to 7

Cronbach's Alpha = .88

Mean Growth Mindset Calculation: Sum of items 5-8/4

5. I like to try new things
6. I am not afraid of trying new things, even if they seem hard
7. I like to be challenged by new things
8. I like to try new things, even if I am not very good at them at first

Hopeful Purpose

Range 1 to 7

Cronbach's Alpha = .85

Mean Growth Mindset Calculation: Sum of items 9-12/4

9. I am excited about my future
10. I trust my future will turn out well
11. My life will make a difference in the world
12. I am doing things now that will help me achieve my purpose in the world

Prosocial Orientation

Range 1 to 7

Cronbach's Alpha = .86

Mean Growth Mindset Calculation: Sum of items 13-17/5

13. It is important for me to understand how other people feel
14. I am happy when others succeed
15. I care about how my decisions affect other people
16. I can be counted on to help if someone needs me
17. I care about the feelings of my friends

Transcendent Awareness

Range 1 to 7

Cronbach's Alpha = .85

Mean Growth Mindset Calculation: Sum of items 18-22/5

18. There is a larger purpose in life of which I am a part
19. I have a religious or spiritual view of life
20. I am committed to seeking meaning in my life
21. I have beliefs or values that guide my decisions
22. I think that the way I live my life should benefit others

Positive Emotionality

Range 1 to 7

Cronbach's Alpha = .85

Mean Growth Mindset Calculation: Sum of items 23- 26/4

23. When I want to feel a more positive emotion, I change the way I am thinking about a situation
24. I control emotions by changing the way I think about the situation I am in
25. When something upsets me I try to express how I am feeling rather than pretend I am not upset
26. When I want to feel less negative emotions, I change the way I am thinking about the situation

Goal Management (Intentional Self-Regulation)

Range 1 to 7

Cronbach's Alpha = .88

Mean Growth Mindset Calculation: Sum of items 27- 30/4

- 27. I develop step-by-step plans to reach my goals
- 28. If I set goals, I take action to reach them
- 29. It is important for me to that I reach my goals
- 30. I know how to make my plans happen

PART THREE: Developmental Outcomes Evaluation

The developmental outcomes instrument measures the developmental outcomes that occur when youth thrive because of participation in high quality 4-H programs. These outcomes are: (1) Positive academic attitudes; (2) social competence; (3) personal standards; (4) connection with others; (5) personal responsibility; and (6) contribution to others.

Mean scores can be calculated for each developmental outcome as well as an overall developmental outcome score.

Overall Developmental Outcomes Score

Calculation: Sum of items 1- 27/27

Range: 1-7

Total Youth Engagement Scores can be recoded into categorical variables:

- Very low developmental outcomes = 1.0 to 2.2
- Low developmental outcomes = 2.3 to 3.5
- Moderate developmental outcomes = 3.6 to 4.8
- High developmental outcomes = 4.9 to 6.1
- Very high developmental outcomes = 6.1 to 7.0

Positive Academic Attitudes

Range 1 to 7

Cronbach's Alpha = .90

Mean Positive Academic Attitudes Calculation: Sum of items 1 -6/6

- 1 I think the things I learn in school are useful
- 2 Being a student is one of the most important parts of who I am
- 3 I want to learn as much as I can at school
- 4 I think it is important to earn good grade
- 5 I think a lot about how to do well in school
- 6 School is very important for later success

Social Competence

Range 1 to 7

Cronbach's Alpha = .82

Mean Social Competence Calculation: Sum of items 7-10/5

- 7 I get along well with people who are different than me
- 8 I listen to the opinions of others
- 9 I control my anger when I have a disagreement with someone
- 10 I follow the rules when I am in a public setting
- 11 I respect the views of others, even if I disagree

Personal Standards

Range 1 to 7

Cronbach's Alpha = .87

Mean Personal Standards Calculation: Sum of items 12-15/4

- 12 It is important for me to do the right thing
- 13 It is important for me to be a role model for others
- 14 It is important for me to do my best
- 15 It is important that others can count on me

Connection with Others

Range 1 to 7

Cronbach's Alpha = .79

Mean Connection with Others Calculation: Sum of items 16-19/4

- 16 I think it is important to be involved with other people
- 17 Having friends is important to me
- 18 I feel connected to my friends
- 19 I feel connected to others in my community

Personal Responsibility

Range 1 to 7

Cronbach's Alpha = .88

Mean Personal Responsibility Calculation: Sum of items 20-23/4

- 20 I take responsibility for my actions
- 21 I can be counted on to follow through on things I say I will do
- 22 I am a responsible person
- 23 I do the things I promise to do without being reminded

Contribution to Others

Range 1 to 7

Cronbach's Alpha = .91

Mean Contribution to Others Calculation: Sum of items 24-27/4

- 24 I volunteer in my community
- 25 Giving back to my community is important to me
- 26 It is important for me to contribute my time to help others
- 27 I have things that I can contribute for the well-being of others

Item Development

The items that make up the 4-H Thriving Model Evaluation instruments were established in an initial pilot study of 4-H youth in 2017. The measurement model was further refined during a confirmation study of 4-H youth in 2018 (Arnold & Gagnon, in press). The items were originally selected from a variety of sources, and in some instances were developed for the measurement study (original items). The items and their sources are listed in the table below.

Factor	Source
Developmental Context	
<i>Sparks</i>	Original Items
<i>Program Quality</i>	Original Items
<i>Developmental Relationships</i>	Original Items
Thriving Indicators	
<i>Challenge and Discovery</i>	Personal Beliefs Survey (Flores, 2006)
<i>Challenge and Discovery</i>	Original Items
<i>Hopeful Purpose</i>	Adolescent Hope Scale (Lippman et al., 2014)
<i>Hopeful Purpose</i>	Adolescent Purpose Scale (Lippman et al., 2014)
<i>Pro-Social Orientation</i>	Adolescent Empathy Scale (Lippman et al., 2014)
<i>Pro-Social Orientation</i>	PYDI Caring Scale (Arnold, Nott & Meinhold, 2012)
<i>Positive Emotionality</i>	Emotional Regulation Questionnaire (Gross & John, 2003)
<i>Positive Emotionality</i>	Adolescent Autonomy Scale (Noom, Dekovic, & Meeus, 2012)
<i>Intentional Self-Regulation</i>	Adolescent Goal Orientation Scale (Lippman et al., 2014)
<i>Intentional Self-Regulation</i>	Adolescent Self-Regulation Inventory (Moilanen, 2006)
Developmental Outcomes	
<i>Personal Standards</i>	Diligence and Responsibility Scale (Lippman et al., 2014)
<i>Personal Standards</i>	PYDI Character Scale (Arnold, Nott & Meinhold, 2012)
<i>Personal Standards</i>	Trustworthiness and Integrity Scale (Lippman et al., 2014)
<i>Connection</i>	PYDI Connection Scale (Arnold, Nott & Meinhold, 2012)
<i>Academic Attitudes</i>	Educational Engagement Scale (Lippman et al., 2014)
<i>Academic Attitudes</i>	Cognitive School Engagement Scale (Li & Lerner, 2013)
<i>Social Competence</i>	Social Competence Scale (Lippman et al., 2014)
<i>Social Competence</i>	PYDI Competence Scale (Arnold, Nott & Meinhold, 2012)

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