



Measuring the Impact of 4-H

Common Measures 2.0 and the 4-H Thriving Model

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Measuring the Impact of 4-H: *Common Measures 2.0 and the 4-H Thriving Model*

For well over a century, 4-H has contributed to the learning and development of youth in significant ways, positioning 4-H as the largest and enduring youth development organization in the country. Project-based learning and positive youth development have long been the intended outcomes of 4-H, and while individual states have worked to evaluate the impact of 4-H on youth locally, the national 4-H system lacked a clear and unified approach until the introduction of 4-H Common Measures (Lewis, et al., 2015). Further testing and refinement of the initial common measures has led to an inventory of established instruments for use in 4-H programs, now referred to as Common Measures 2.0 (National 4-H Council, 2020). This collection of instruments, and related supports such as data analysis and reporting, has advanced 4-H's ability to measure the impact of 4-H in selected areas.

The development of the 4-H Thriving Model (Arnold, 2018; Arnold & Gagnon, 2019) advanced the measurement of the impact of 4-H by identifying the processes through which 4-H contributes to the positive development of youth. The 4-H Thriving Model outlines the connection between participation in high quality 4-H programs, the effect of that participation on youth thriving, and how thriving youth, in turn, achieve key developmental outcomes. The 4-H Thriving Model captures the impact of 4-H on youth separately from content focused knowledge, attitudes and behaviors, and thus complements and expands the 4-H Common Measures 2.0 measures to include more in-depth measurements of program quality, youth thriving, and developmental outcomes.

Investments in 4-H Common Measures 2.0 and the 4-H Thriving Model are driven by the **aim of measuring the long-term impact of 4-H** programs on youth. The purpose of this document is describe the alignment of 4-H Common Measures 2.0 and the 4-H Thriving Model to clarify the evaluation options available to assist the 4-H system in measuring and sharing the impact of 4-H on youth.

In terms of measureable impact, it is helpful to think of 4-H programs in four parts:

1. The 4-H Program Experience – measuring youths’ experience in a 4-H program
2. Youth Content Outcomes – measuring the process of development and thriving
3. Positive Youth Development – measuring the social-emotional learning of youth
4. Developmental Outcomes – measuring youth developmental outcomes

Measuring the 4-H Experience (Developmental Context)

The 4-H Experience is the intentional setting for learning provided for young people in 4-H. Research shows that high quality youth development settings are necessary for programs to have an impact on youth. One way that 4-H has commonly described the ingredients of a high-quality program is through the Essential Elements of 4-H Programs (Kress, 2005). These essential elements are embedded in broader descriptions of youth program quality (Eccles & Gootman, 2002; Smith et al., 2012). Research also show that additional ingredients such as facilitating a young person’s interest or sparks (Benson & Scales, 2011), fostering developmental relationships (Roehlkepartain et al., 2017), and ensuring youth engagement (Weiss, Little, & Bouffard, 2005) are key to creating high quality settings for youth development. In short, how we plan and implement programs in 4-H matters; the goal is to create a **high quality developmental context**.



Both Common Measures 2.0 and the 4-H Thriving Model Assess 4-H Experience

- **Common Measures 2.0**
The 4-H Experience Questionnaire
This measure focuses on the presence of the Essential Elements: Belonging, mastery, independence and generosity.
- **4-H Thriving Model**
The Developmental Context Questionnaire
This in-depth measure focuses on Sparks, Developmental Relationships, Program Quality and Youth Engagement

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Measuring Youth Content Outcomes

One of the main goals for 4-H is youth learning in specific content areas, such as science, healthy living, career exploration, and citizenship. Measuring youth learning outcomes is an important first step in determining the impact of 4-H on youth. Outcome measures have largely been the focus of 4-H program evaluation for many years. The suite of 4-H Common Measure 2.0 instruments contains instruments to measure program content outcomes. The Common Measures 2.0 instruments have been carefully developed, refined, and tested by a group of test and measurement scientists in the last few years.

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Only Common Measures 2.0 Assess Content Learning

- **Common Measures 2.0**
 - Youth Learning Outcomes Measures
 - *Citizenship*
 - *College and Career Readiness*
 - *Healthy Living*
 - *Science*

Measuring Positive Youth Development (PYD)

Positive youth development (PYD) is a process, something that takes place over time. It is important to distinguish the *process* of PYD (what happens when youth develop) from the *outcomes* of positive development. Measuring program outcomes determines the

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impact or value of a program. Measuring program processes illuminates how outcomes are achieved, which has implications for program development and improvement. The 4-H Thriving Model highlights this distinction by aligning the process of PYD with that of youth thriving

(Benson & Scales; 2009; Search Institute, 2014). As such PYD is not the final developmental outcome of 4-H, but the process through which outcomes are achieved.

Only the 4-H Thriving Model Instrument Assesses the Process of PYD

- **The 4-H Thriving Model**

The 4-H Thriving Model measures the process of PYD based on six thriving indicators identified by extensive research by Search Institute (2014) and refined by Arnold and Gagnon (2019).

- Growth Mindset
- Openness to Challenge and Discovery
- Pro-Social Orientation
- Hopeful Purpose
- Transcendent Awareness
- Positive Emotionality
- Self-Regulation

Measuring Youth Developmental Outcomes

The final aspect of measurement relates to the youth developmental outcomes of 4-H. These outcomes are the broader social-emotional and non-cognitive, skills and abilities that youth participating 4-H program acquire.

Both Common Measures 2.0 and the 4-H Thriving Model Assess Developmental Outcomes

- **Common Measures 2.0**

Common Measures 2.0 measures developmental outcomes with the *Universal 4-H Instrument*, focusing on two developmental constructs:

- Personal mindset (character, growth mindset, persistence, decision-making and ethics)
- Social skills (ability to communicate through multiple methods, value and respect for other cultures)

- **The 4-H Thriving Model**

The *4-H Thriving Model Instrument* measures developmental outcomes more extensively, focusing on the following developmental constructs:

- Academic motivation and success
- Social competence
- Personal standards
- Connection with others
- Personal responsibility
- Contribution to others

Enhancing 4-H Program Evaluation

Common Measures 2.0 and the 4-H Thriving Model

Developmental Context	Positive Youth Development	Content Learning Outcomes	Developmental Outcomes
<ul style="list-style-type: none">Measures of quality program practices <ul style="list-style-type: none">InstrumentsCM 2.0 4-H Experience Instrument4-H Thriving Model Development Context Instrument	<ul style="list-style-type: none">Measures the process of youth development <ul style="list-style-type: none">Instruments4-H Thriving Model Thriving Indicator Instrument	<ul style="list-style-type: none">Measures content outcomes achieved through program participation <ul style="list-style-type: none">InstrumentsCM 2.0<ul style="list-style-type: none">ScienceHealthy LivingCitizenshipCollege and Career Readiness	<ul style="list-style-type: none">Measures positive youth development outcomes <ul style="list-style-type: none">InstrumentsCM 2.0<ul style="list-style-type: none">Universal Instrument4-H Thriving Model Developmental Outcomes Instrument



4-H is the youth development organization of our nation's Cooperative Extension System and USDA.



Summary

The 4-H Common Measures 2.0 instruments, and the instruments related to the 4-H Thriving Model have made a significant contribution to measuring the impact of 4-H participation on youth. Having the ability to measure all aspects of 4-H, from a young person's experience to longer-term developmental outcomes helps us tell our story on a much broader scale. Using these instruments can also lead to program improvements through a better understanding of the experiences youth have in 4-H, which in turn helps educators improve and enhance 4-H program settings and the activities that promote learning and thriving.



References

- Arnold, M. E. (2018). From context to outcomes: A thriving model for 4-H youth development programs. *Journal of Human Sciences and Extension*, 6(1), 141-160.
- Arnold, M. E. & Gagnon, R. J. (2019). Illuminating the process of youth development: The mediating effect of thriving on youth development program outcomes. *Journal of Human Sciences and Extension*, 7(3), 24-51.
- Benson, P. L. & Scales, P. C. (2009). The definition and preliminary measurement of thriving in adolescence. *Journal of Positive Psychology*, 4(1), 95-104.
- Benson, P. L., & Scales, P. C. (2011). Thriving and sparks. In R. J. R Leveque (Ed.), *Encyclopedia of Adolescence* (pp. 2963-2976). New York: Springer.
- Eccles, J., & Gootman, J. (Eds.). (2002). *Community programs to promote youth development*. Washington DC: National Academy Press.
- Kress, C. (2005). Essential Elements of positive youth development. In *Strengthening Positive Youth Development Environments* (pp. 20-23). Madison, WI: University of Wisconsin Extension 4-H Program.
- Lewis, K. M., Horrillo, S. J., Widaman, K., Worker, S. M., & Trzesniewski, K. (2015). National 4-H Common Measures: Initial Evaluation from California 4-H. *Journal of Extension*, 53(2), [On-line] Article 2RIB3.
- National 4-H Council (2020). *4-H Common Measures*. <https://4-h.org/professionals/common-measures/>
- Roehlkepartain, E. C., Pekel, K., Syvertsen, A. K., Sethi, J., Sullivan, T., K., & Scales, P. C. (2017). *Relationships first: Creating connections that help young people thrive*. Minneapolis, MN: Search Institute.
- Search Institute (2014a). *The Search Institute model of thriving orientation: Overview of its evolution through recent funding from the Thrive Foundation for Youth*. Unpublished paper. Minneapolis, MN: Author.
- Smith, C., Akiva, T., Sugar, S., Lo, Y. J., Frank, K. A., Peck, S. C., Cortina, K. S., & Devaney, T. (2012). *Continuous quality improvement in afterschool settings: Impact findings from the Youth Program Quality Intervention study*. Washington, DC: The Forum for Youth Investment.
- Weiss, H. B., Little, P. M. D., & Bouffard, S. M. (2005). More than just being there: Balancing the participation equation. *New Directions for Youth Development*, 105, 15-31.