

Maine 4-H Afterschool Academy—A Professional Development Opportunity for Out-of-School-Time Providers

Abstract

The Maine 4-H Afterschool Academy trained 369 after-school and out of school time providers in 2011. This easy-to-adapt professional development opportunity used blended learning, a combination of in-person and Web-based opportunities. Providers successfully learned concepts and practical knowledge regarding 4-H, specifically 4-H Science. In post-training evaluations, 86% of participants reported feeling more confident in incorporating science, engineering, and technology in their afterschool program. This blended learning approach eliminated some barriers Extension faculty face when designing programming for afterschool providers.

Jennifer Lobley
Associate Extension
Professor
Volunteer
Development
Machias, Maine
jennifer.lobley@maine.edu

Kristy L. Ouellette
Assistant Extension
Professor
4-H Youth & Family
Development
Lisbon Falls, Maine
kristy.ouellette@maine.edu

University of Maine
Cooperative Extension

Introduction

The flexibility and freedom of afterschool settings can complement and extend the exploration, curiosity, and discovery that are promoted in classroom curricula. Many scientists report that non-school environments helped spark their passion to pursue a career in science (Gibbons, Bergsman, & Smith, 2008). 4-H is well positioned to partner and meet the needs of the afterschool provider. The Massachusetts After-School Research Study reviewed indicators that lead to high-quality programming and found staff quality is the critical component (Miller, 2005).

Nationwide, afterschool providers indicate a need for training in structured activities, understanding developmental stages, and how to work with parents (Davis, Locklear, & Scott, 1990). Afterschool providers come from a variety of past experiences with, understandings of, and comfort levels with science. Nationally, survey responses indicate that approximately 76% of afterschool programs do not have a dedicated science person on staff; typically those who teach science are youth workers with little science background (Chi, Freeman, & Lee, 2008). 4-H has the ability to provide science-based resources, knowing the key to quality childcare is a well-trained provider (Peterson & Prillaman, 2000).

Program

The Maine 4-H Afterschool Academy offers 10 hours of professional development through a combination of face-to-face and Web-based training. Program components include the following.

- Part 1: *e-Learning for 4-H Volunteers*, a Web-based training consisting of four modules. Participants are required to complete the training before the first face-to face session. This provides all participants with a common foundation of knowledge focused on the fundamentals of 4-H.
- Part 2: An in-person session focused on two positive youth development principles: Essential Elements of 4-H and Ages and Stages of Youth. This session reinforces key concepts that were introduced in the initial Web-based training modules. The workshop integrates a variety of opportunities for adult learners to work together. Hands-on activities and small-group discussions were used to tie their learning directly to their own program. 4-H curriculum was introduced to allow participants to view a variety of STEM-based 4-H curricula, learn how to evaluate it for age appropriateness, and practice modifying activities for different age groups. Academy participants were given a curriculum set of their choice.
- Part 3: Two recorded Adobe Connect webinars. One webinar focused on the National 4-H Youth Science Day Experiment, Wired for Wind. It outlined the activity, included a short "how to" video, listed materials, and provided resources available from the University of Maine. The Family Science webinar focused on how to expand science beyond the afterschool setting and highlighted ideas for involving families. As an assignment, participants were asked to create a plan of action for family involvement in their program.
- Part 4: A face-to face session that engaged participants in a variety of experiential activities to help them understand science, engineering and technology. Lesson plans and activities from *Tools of the Trade II* (Junge, Manglallan, Reilly, & Killian, 2010) were chosen for modeling purposes and easy replication. Additional science activities were used to demonstrate how to facilitate and manage centers effectively. Participants were able to experience the activities first-hand, allowing them to understand what youth would experience, ask questions, and become familiar with the materials and set up.
- Part 5: A final webinar designed to explain the Maine 4-H enrollment process. Providers learned about benefits of enrolling youth in the program as well as county, state and national events.

Results

Three hundred sixty-nine afterschool providers were trained from seven of the 16 counties in Maine in the first year. Forty-eight programs reaching nearly 18,000 youth have been influenced by this work. The Academy helped to expand 4-H Science in the state of Maine while creating connections between schools and the University of Maine to share research-based information and raise youth aspirations. Seventeen programs participated in the National Youth Science Experiment, and a small number of providers contacted county Extension offices seeking out more research-based resources.

Participants documented increased knowledge and comfort regarding positive youth development concepts and science integration in a post-training survey (Table 1).

Table 1.
Sample Questions from Post-Training Participant Survey

Survey Question	% of respondents that answered YES*
I have a better understanding of the 4-H Youth Development program.	100%
I have used the concepts/resources I learned/received in the afterschool academy with youth in my program.	83%
I have a better understanding of how to incorporate Science, Engineering and Technology into my afterschool program.	95%
I feel more confident in incorporating Science, Engineering and Technology into my afterschool program.	86%
The resources that were shared are current and relevant to afterschool providers.	97%
I have started to think about the Essential Elements of 4-H when planning programs and/or activities.	63%
I completed the National 4-H Youth Science Day experiment with youth in my program.	26%
18% response rate (n=65 respondents)	

Discussion

Offering a training model that fits the schedules of afterschool providers can be challenging. When program staff members are excited about professional development opportunities, we find they are more likely to implement the concepts and ideas learned. Offering a combination of Web-based and face-to-face training allows for individualized flexibility. Trainings offered on-site so providers could attend without having to manage additional travel worked best.

Technology helps address the time barrier, but provides a challenge for people without high-speed Internet access. In addition, many participants had little to no experience with on-line webinars, registrations, and surveys. Data were collected more successfully at the end of each in-person session.

Afterschool providers want easy to use, low-cost curriculum and activities that take little time to

prepare. 4-H provides a variety of science-based curricula that works well in the afterschool arena. Teaching providers how to determine age-appropriateness and how to modify activities can help providers save both time and money.

Ideas for helping providers use science-based activities to connect family learning at home were well received. Providing time for networking and sharing ideas around this topic engaged learners and inspired them to create personal plans to try a new idea with their own program.

Summary

Afterschool providers are eager for professional development, yet have limited time. Offering a blended approach of face-to-face and Web-based learning can be successfully used as a delivery method with this audience. Webinars can offer introductory information, while face-to-face trainings need to offer hands-on practice to increase confidence levels. Providers should be encouraged to act more as a coach or assistant in helping youth explore concepts and find answers to their questions. With the cadre of resources and curriculum available, 4-H is uniquely positioned to provide such training for afterschool providers.

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