

Education and Facilitation Methods for Extension¹

Kathryn A. Stofer²

Extension faculty, staff, and volunteers serve a wide variety of stakeholders who learn in myriad ways. Education research provides insight into the effectiveness of such tools, and Extension further encourages flexibility and innovation in methods when facilitating programming. The days of “delivering education” to our audiences are past. The Extension of the future is learner-centered and focuses on decision-making and supporting action. Today we seek to partner with our audiences in order to help them meaningfully gather research-based information relevant to improving their lives and necessary to implementing behavior change. This document outlines, compares, and contrasts methods that Extension professionals can use with their stakeholders to achieve these goals, including ways to turn traditional one-strategy program formats into programs incorporating multiple facilitation strategies.

Background

For many years, so-called *non-formal* education and learning has been the heart of Extension’s programming. Etling (1993) defined non-formal (or nonformal) education as intentional and systematic education with content adapted for the needs of the students to maximize learning. Other out-of-school researchers and practitioners may call this *informal* education, including such institutions and settings as museums, camps, and afterschool programs, particularly in science, technology, engineering, and math, or STEM, domains. However, both of these terms connote these programs and settings as second-class compared with formal schooling (Stofer, 2015). The use of *education*

foregrounds the teacher as an expert, suggesting a deficit or hole waiting to be filled in the pupils (Moll, Amanti, Neff, & Gonzalez, 1992).

In reality, US adults spend only about 5 percent of their lifetimes in formal classroom settings (Falk & Dierking, 2010). That leaves much of their adult lives, as well as a chunk of their childhoods, as times for *free-choice learning*, in which learning happens where, when, and with whom they choose. This terminology emphasizes the primacy and power of the learner, with the Extension professional or other educator playing a role more of facilitator or guide. This values the learner’s expertise and experience and allows the Extension professional to tailor the research-based knowledge and solutions to the needs of the audience. See other EDIS documents on needs assessments for ways to assess learner expertise and experience while planning and providing your programs.

Facilitating or Teaching?

Facilitating is more than simply organizing a room and procuring food and outside speakers, though those are important for a successful program. Tips for solving some common program issues of this kind can be found here: <http://edis.ifas.ufl.edu/wc178>. Fundamentally, facilitating involves moderating the discussion among parties and guiding the overall experience of learning for participants.

Several Extension publications have considered the issue of when and if Extension should facilitate information sharing

1. This document is AEC619, one of a series of the Department of Agricultural Education and Communication, UF/IFAS Extension. Original publication date April 2017. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

2. Kathryn A. Stofer, research assistant professor, STEM Education and Outreach, Department of Agricultural Education and Communication; UF/IFAS Extension Gainesville, FL 32611.

rather than educate and deliver research-based information (Boyer, 2014; Cyr, 2008; Raison, 2010). Extension agents may worry that facilitating a program may lead to learners no longer needing Extension's expertise, if the learners feel that the Extension agents simply lead them to resources that exist elsewhere.

However, I argue that facilitation is more effective than information delivery in almost all cases. First, if done correctly, Extension provides the same expertise that we have always done, but we value the participants' expertise as well, meaning that we as Extension agents can walk away with better information about how to serve our clientele and their needs. Second, if we empower those participants to share the information they get from us themselves, we are amplifying the message to a larger audience and further proving the value of Extension. Third, if we can reduce the time we spend on some basic questions by empowering our participants to spread the word (think of train-the-trainer models, see <http://edis.ifas.ufl.edu/wc170> for more on that model), then we can focus efforts on answering the next, more advanced questions. Finally, empowering participants is an important part of building our relationships as partners in communities. For an example of this type of facilitating, also called engaging communities, see Bhat-tacharyya, Templin, Messer, and Chazdon (2017).

Linking Methods to Program Planning and Reporting

When planning new or revising existing programs, beginning with the goal in mind is crucial. That means devising a logic model (see <http://edis.ifas.ufl.edu/wc041> and <http://edis.ifas.ufl.edu/wc106> for guidance) and clearly stating your objectives from the beginning (see <http://edis.ifas.ufl.edu/fy1327>), before you choose the effective methods for the audience and objectives. The logic model development will allow you to link specific audiences and objectives with appropriate methods, which form the activities of your model, and set you up for reporting progress and accomplishments through evaluation (see <http://edis.ifas.ufl.edu/wc109>).

For more on program planning, see <http://edis.ifas.ufl.edu/fy1229> and <http://edis.ifas.ufl.edu/WC178>.

Types of Methods

There are several types of learning experiences that can be put into many different formats of programming, including hands-on, experiential or integrative, inquiry- or practice-based, and reinforcement or knowledge-directed. Previous

understanding has dictated that a particular style of activity, such as a presentation, must necessarily be a single learning experience, such as reinforcement. Today we recognize that a number of these strategies may be incorporated into a single activity, whether it be a one-hour presentation, a ten-module online certificate, or a one-week, in-depth professional development workshop. Incorporating multiple strategies will serve to reach a wider variety of learners at once.

Hands-On Activities

Hands-on activities give learners a chance to do something, to participate. Instead of sitting as passive recipients of a lecture, learners may actively follow a set of lab instructions, discuss a text with others, or take a field trip. On their own, hands-on activities may get learners involved in a topic, but without time and direction in reflection, hands-on activities alone are unlikely to help learners progress. The following are some examples of hands-on activities:

- question-and-answer after a lecture,
- construction from a ready-made kit,
- cooking with a known recipe,
- lab activities with set instructions and expected outcomes,
- field trip with docent-led tour or unguided exploration,
- discussing a text or case study,
- attending a field day or festival, and
- attending a workshop.

Inquiry- or Practice-Based Activities

Inquiry- or practice-based activities involve learners in the process; for example, encouraging them to ask questions, systematically collect data, and draw conclusions based on that data. These activities correspond to what was originally described as the scientific method. Where the scientific method focused narrowly on a relatively linear process that involved hypotheses and experiments, inquiry- and practice-based learning allows learners to enter at multiple points in the process of investigation. Learners in inquiry-based activities gain skills in processes related to research. Some inquiry activities include

- a wide range of data collection activities, including conducting observations, interviews, or focus groups;
- finding patterns in existing datasets; and
- visualizing data in graphs or map-based representations.

Experiential Activities

Hands-on or inquiry-based activities can help learners gain new knowledge when those activities are turned into *experiential* or *integrative activities* (discussed in the next section). First, experiential activities go beyond simply hands-on activities when they incorporate input from the learner such as presenting the activities to others or making decisions during the activities that guide the experience. Experiential activities often involve multiple methods of participation and even collaboration. Activities can also involve multiple senses. Examples include

- role playing,
- presenting at a field day or festival,
- performances or other artwork creation,
- skills demonstrations,
- working through online or physical models and lab experiments with unknown outcomes,
- practicum teaching or facilitating, and
- taste testing cultivars and describing similarities and differences between them.

Integrative Activities

To promote lasting gains in knowledge, practices, or affect, guided reflection time must accompany even experiential activities to allow learners to understand why they are experiencing things and what the experience will help them do better. For example, on a farm tour, hands-on or experiential programming that incorporates opportunities for participants to make meaning from the activities, especially by connecting the activities to their own lives, becomes *integrative activity*. Learners may also create their own or revise existing materials that they themselves might use for reinforcement or share with others. Some people may refer to integrative activities as *experiential learning*, where experiences build through a cycle of doing, applying, and reflecting on performing activities. This model is especially popular in 4-H programs. For more detail, see Norman and Jordan (2006). Examples include

- brainstorming or idea generation;
- group discussion;
- editing and adapting existing activities for new audiences;
- personal, office, or field visit or telephone consultation with Extension agents; and
- organizing conferences, conventions, or symposiums.

Reinforcement Activities

Reinforcement or *review* activities can help learners refresh their knowledge and understand where they may still have gaps. However, text-only activities might not be helpful to learners with low literacy. Instead, watching a video or listening to a podcast may be more appropriate. Reinforcement activities include

- reading articles from EDIS, newspapers, newsletters, posters, or fact sheets, whether posted online or read in hard copy;
- reviewing email messages, social media posts, or web pages sent by Extension professionals in response to stakeholder questions;
- watching and listening to videos and podcasts;
- using workbooks; and
- engaging with identification services, where stakeholders submit samples or photos to Extension for analysis and the results reported back to stakeholders include information about the identified organism or problem.

A Note about Citizen Science or Public Participation in Science Research

More and more Extension personnel are becoming involved in citizen science with their stakeholders. Citizen science or public participation in research can be a valuable method, but the type of learning activity provided depends on the type of involvement. For example, data collection for someone else's protocol provides hands-on activity. Submitting that data and receiving a report provides a reinforcement activity, but analyzing data or developing new questions and protocols for data collection is an integrative activity. For more on Extension and Citizen Science, see Stofor (2017).

Additional Considerations

Think beyond a single workshop as an output in and of itself. Instead, consider a series of activities because a larger program can help incorporate multiple methods and move stakeholders to true behavior change. Each of these types of experiences may involve different levels of cognitive engagement, so the outcomes for the learner may be different. Planning your program activities around these objectives can help you determine what type of engagement to employ.

When planning your educational activities, understanding your audience is crucial. Their levels of literacy, especially for written materials or English language, will impact the

types of materials and formats you use. Another form of literacy is technological, meaning you must consider whether your stakeholders have access to and ability to use the technology that you might use to share materials. Understanding your audience's schedules and lifestyles will help you determine the length and timing of individual program components, as well as the format of offering—whether in-person in one long block or multiple online self-paced modules. Finally, cultural considerations—whether audiences prefer to learn collaboratively in groups or individually—can play a role in method selection. For more on program planning and audience needs, see Diehl and Galindo-Gonzalez (2014) and Monaghan, Warner, Telg, and Irani (2014).

Conclusion

Transitioning from a model where the Extension agent is an all-knowing expert to one where they are a knowledgeable but resourceful guide can benefit both the agent and the learners. Once the audience is empowered to participate fully, they can assist the agent by articulating their needs and continuing their learning in a self-guided manner. Ultimately these audiences can become advocates for Extension and, if not advocates of change, at least examples of change in their community. The agent can focus his or her efforts on addressing the causes of their audience's barriers to change rather than having to guess at these barriers or know everything about every step of the process to change. Ultimately, both the audience and agents save time and money and more easily implement behavior change and informed decision-making to improve quality of life.

Additional Resources

SeEVERS, B. (Ed.). (1997). *Education through cooperative extension*. Albany, N.Y: Delmar Publishers.

Please see Appendix for definitions of educational methods.

References

Bhattacharyya, R., Templin, E., Messer, C., & Chazdon, S. (2017). Participatory Evaluation and Learning: A Case Example Involving Ripple Effects Mapping of a Tourism Assessment Program. *Journal of Extension*, 55(2). <https://www.joe.org/joe/2017april/a3.php>

Boyer, E. L. (2014). Scholarship reconsidered: Priorities of the professoriate. <http://184.168.109.199:8080/jspui/handle/123456789/2134>

Cyr, L. F. (2008). Facilitation competence: A catalyst for effective Extension work. *Journal of Extension*, 46(4), Article 4RIB2.

Dallas, D. (1999). Science in culture: The cafe scientifique. *Nature*, 399, 120.

Diehl, D. C., & Galindo-Gonzalez, S. (2014). *Planning or Refining an Extension Program*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/fy1229>

Etling, A. (1993). What is nonformal education? *Journal of Agricultural Education*, 34(4), 72–76. <https://doi.org/10.5032/jae.1993.04072>

Falk, J. H., & Dierking, L. D. (2010). The 95 Percent Solution. *American Scientist*, 98(6), 486. <https://doi.org/10.1511/2010.87.486>

Guion, L.A. (2001). Educational Methods for Extension Programs. FCS6013. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://ufdc.ufl.edu/IR00002176/00001>

Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory Into Practice*, 31(2), 132–141. <https://doi.org/10.1080/00405849209543534>

Monaghan, P., Warner, L. A., Telg, R., & Irani, T. (2014). *Improving Extension Program Development Using Audience Segmentation*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/wc188>

Norman, M. N., & Jordan, J. C. (2006). *Using an Experiential Model in 4-H*. Gainesville: University of Florida Institute of Food and Agricultural Sciences. <http://edis.ifas.ufl.edu/4h243>

Raison, B. (2010). Educators or facilitators? Clarifying extension's role in the emerging local food systems movement. *Journal of Extension*, 48(3), Article 3COM1.

Richardson, J. G. & Jenkins, D.M. (1999). *Extension education: Process and Practice*. NC Cooperative Extension System Publication, NC State University.

Stofer, K. A. (2015). Informal, non(-)formal, or free-choice education and learning? Toward a Common Terminology

for Agriscience and Ag-STEM Educators. *Journal of Human Sciences and Extension*, 3(1), 125–134.

Stofer, K. A. (2017). Tools for Using Citizen Science in Environmental, Agricultural, and Natural Resources Extension Programs. *Journal of Extension*, 55(2), Article 2TOT8.

Acknowledgements

The author wishes to thank Lisa Guion for an earlier document, FCS6013, which inspired this one, and Laura Warner and Tim Momol for review.

Appendix

Definitions of Different Methods

Brainstorming: A process in which participants share and discuss ideas. Each idea is valued and noted.

Buzz Group: Five to eight people who discuss questions posed by a larger group.

Case Study: A specific description of an event for discussion and analysis.

Citizen Science¹: Participants engage in authentic research, either deriving questions from their experiences in the world around them or working to assist in answering questions posed by professionals or others. Participation can be through devising methods, collecting or preparing data, analyzing data, drawing conclusions, or sharing results as well as generating questions.

Conference: A meeting of any size group of people for presentations, workshops, and focused study on a theme.

Convention: A gathering of a large number of people with similar interests that represent different parts of a larger organization. Many planned meetings occur simultaneously.

Discussion¹: Conversation involving multiple people, often guided by a facilitator, where voices are equally valued and participants think deeply about a topic, often connecting it to their own lives and needs.

Fact Sheet: Text document focusing on a single subject that includes instructions, guidelines, or other specific background information.

Fax or E-Mail Message: Printed or electronic information that is transmitted by data port, either a facsimile machine or in packets of data through servers.

Field Day: A planned set of activities in an indoor or outdoor setting away from traditional classrooms and schools for demonstrations

Field Visit¹: A face-to-face meeting between at least two people, usually held at the location of those seeking assistance. Also known as a Personal Visit.

Forum or Question-and-Answer Session: A form of group discussion that allows the audience to participate and ask questions of a panel of experts. It may or may not be moderated. The focus typically is on an issue that affects a large number of people.

Home Study Kit: Educational materials assembled or created for the purpose of independent study.

Identification Service¹: Exchange between Extension personnel who offer expert identification of an organism or problem, often for a fee when samples are analyzed in a laboratory. Education occurs through reporting results or devising potential solutions and actions to take.

Journal Article: A means of presenting scientific, theoretical, or philosophical information in a professional publication.

Leaflet or Flier: Brief, concise printed information focused on a specific subject designed to create or enhance awareness or advertise an event or program.

Meeting: An assembly of people at which a topic of common interest is presented or discussed.

Newsletter: A printed instrument developed for a targeted audience in order to provide timely information of current interest.

Notebook: A compilation of fact sheets or other printed information concerning a specific topic.

Office Visit: A face-to-face meeting between at least two people, usually at the location of the professional consultant.

On-Farm Test: A process in which the new practice or solution is tested on an actual farm to demonstrate how useful it is.

Panel: A series of short presentations and discussion among a small group of people who are knowledgeable about a subject conducted in front of an audience.

Personal Visit: A face-to-face meeting between at least two people, usually held at the location of those seeking assistance. May also be called a Field Visit.

Practicum Teaching and Facilitating¹: Participants begin teaching or facilitating activities under the guidance of a mentor, often as culmination of a teacher/facilitator preparation program.

Result Demonstration: A presentation that shows the effects of a practice change by means of practical application.

Role-Play: An exercise in which selected members of a group are assigned to play specific roles.

Science Café²: An event held in a public space, typically a restaurant or bar, where attendees listen to a short presentation by an expert or a few experts, then engage in question and answer or discussion of the topic.

Skills Demonstration: An explanation of how to implement a practice where an expert either shows the participants how to do the steps or guides the learner in carrying out the task.

Skit: A short, planned, rehearsed dramatic presentation designed to illustrate a situation or point.

Symposium: An assembly in which short presentations are made by a small number of speakers who are knowledgeable about a particular subject.

Tour: Travel by a group of learners to a place of defined interest to study aspects that may be unfamiliar to them.

Workshop: A meeting in which a small group of people with common interests meet to research, study, or practice a certain specific topic or skill.

¹ Definitions by the author

² Dallas(1999)

*All other definitions adapted from Richardson and Jenkins (1999), as reported in Guion (2001).