



Virginia Cooperative Extension Program Planning Series: Extension Program Delivery Using an Expert Model

*Authored by Karen A. Vines, Department of Agricultural, Leadership, and Community Education,
Virginia Tech*

Correspondence concerning this publication should be addressed to Karen A. Vines, Department of Agricultural, Leadership, and Community Education, Virginia Tech, 266 Litton-Reaves Hall, 175 W. Campus Drive, Blacksburg, VA 24060, United States. Email: kvines@vt.edu or kavines@gmail.com. Karen A. Vines ORCID: 0000-0002-9592-3857

Abstract

For Cooperative Extension to serve as a conduit between higher education institutions and society, greater community engagement is necessary. However, using an expert model of program delivery is also needed, at least in some instances. This publication provides a working definition and conceptual framework of the expert model of program delivery, as well as examples of the use of this model from Extension professionals from two states who participated in a qualitative research study. In addition, this document includes recommendations to boost community engagement while using this model.

Keywords: Extension Program Planning Series, Expert Model, Private Value

Introduction

The traditional model of information delivery for Cooperative Extension, also known as the early or expert model, was developed to provide non-biased, research-based information to rural residents. The aim was to improve agricultural production to feed a growing nation and improve rural communities where higher education might not be available. This system was the result of several pieces of key legislation increasing access to both education and research to rural residents. The original Land-Grant Act of 1862 provided federal funds to establish colleges “to elevate the practical, and particularly agricultural, education to the level of liberal, collegiate studies” (Geiger 2000, 154). Applied agricultural research evolved from the 1887 Hatch Act through the development of Agricultural Experiment Stations (Geiger 2004; Williams 1991). The Land-Grant Act of 1890 provided regular appropriations for land-grant colleges and expanded the programmatic

focus to include arts and sciences on the condition that equal access was provided to all, regardless of race (Geiger 2005; Seevers and Graham 2012; Williams 1991). The Smith-Lever Act ([1914] 2008) created the Cooperative Extension Service and institutionalized a mechanism for the delivery of scientific findings derived from colleges of agriculture for practical application in everyday life to audiences who were unlikely to attend college. Subsequent amendments of the Smith-Lever Act expanded the scope of subject matter that could be addressed and provided Hatch and Smith-Lever status to new U.S. states and territories to increase access for specific audiences with unique needs (Seevers and Graham 2012; University of Florida, n.d.).

Since the passage of the 1914 Smith-Lever Act, Extension has evolved to meet the changing needs of people, communities, and the society in which they exist. However, as Seevers and Graham (2012) state (p. 38), “Extension has changed more in methodology than philosophy throughout its history.” As early as 1963, there was concern that with the reduction in the number of farmers and increasing urban influence on state legislatures, Cooperative Extension needed to identify new approaches to better meet the needs of society as a whole (Fessler 1964; Vines, Watts and Parks 1963). Indeed, Oregon Cooperative Extension lost half of its traditional audience between 1986 and 2006 (King and Boehlje 2013). In addition, recurring civil rights issues brought to light in the U.S. in 2020 require use of scrutiny regarding how previously underserved or excluded communities are included in the work of Cooperative Extension at all levels.

Over time, Extension’s role has changed. Extension now serves a much wider audience in a much broader range of subjects. Today, Extension focuses as much or more

of its efforts in helping communities address complex issues. While education is still a part of this effort, the delivery of education has become a shared responsibility between the communities and the Extension professional to gain understanding and develop solutions within a local context. These changes in expectations and clientele require more of a philosophical change as Cooperative Extension works to reach different audiences and provide different types of support than originally intended in 1914. This change is critical if Cooperative Extension is to remain relevant and provide viable solutions today.

At its inception, the focus of Extension was on the development and delivery of non-biased, research-based information. The goal was to improve agricultural productivity and the rural communities in which it occurred. This was appropriate since the primary purpose of the organization was providing research-based information to clients in rural communities. The information being developed through research was previously non-existent and the clientele base to which it was provided did not have any other means of access. In today's society, there is no shortage of information on a broad range of topics and people have many choices related to how they find information. The ease of sharing has resulted in the need for people to increase their skill in assessing the validity of information that is used to make decisions at both the individual and community level. Today, Extension uses multiple methods of information delivery including newer technologies associated with social media and mobile devices (Gharis et al. 2014) and maintains a responsibility for ensuring that the information that is provided is of the highest quality.

This publication:

- Provides a contemporary definition of the expert or more traditional model of program delivery used by Cooperative Extension.
- Explains the educational approaches in which this model is most appropriate.
- Provides a conceptual framework for the expert model of program delivery.
- Suggests roles for facilitating partnerships in an expert model.
- Explores opportunities for evaluation within this model.

This information should be used in the context of an earlier publication, "Extension Program Delivery Using an Engaged Model" (<https://www.pubs.ext.vt.edu/>

[content/pubs_ext_vt_edu/en/ALCE/alce-272/alce-272.html](https://www.pubs.ext.vt.edu/en/ALCE/alce-272/alce-272.html)) that focuses on using the alternative to the expert model (Vines 2022). This will provide clearer insight into a more comprehensive view of program delivery. Both articles result from a qualitative study of 35 Extension professionals from two states who provided their preference for either an engaged or expert model of program delivery (Vines 2018). This paper focuses on the expert model of program delivery while the previous publication relates to the engaged model. The term Extension professional is being used to refer to both community- and campus-based faculty or staff involved in carrying out the outreach mission for land-grant universities, except in cases where interviewees specified someone in a specific role. These publications are intended to encourage self-reflection in Extension professionals or volunteers to consider how to most effectively meet the needs of their communities.

Through the qualitative study, participants shared their insights into how these models were used. Their statements are provided in the text below as well as in the appendix of this document. The Extension professionals are identified by the pseudonym they provided; by the program area in which they work — 4-H, Agriculture and Natural Resources (ANR), Family and Consumer Sciences (FCS) or Community Development (CD); and by their state (State 1 or State 2).

The Working Definition of the Expert Model of Program Delivery for Cooperative Extension

A working definition of an expert model of program delivery for Cooperative Extension was developed as part of a research project (Vines 2018). The definition reads:

The expert model of program delivery in Cooperative Extension emphasizes a one-way flow of information, although interaction with clientele exists in the form of discussion, questions, and feedback. The university, through Extension, serves as the expert. In this role, Extension provides guidance and information and responds to questions. Expertise provided by the university is research-based, and the providers of expertise are carefully vetted representatives of the university. The community may be involved in the identification of program needs. Program planning, implementation and evaluation are internal activities of Extension. Other terms used

to refer to this model are outreach, a bucket-filler approach, and top-down programming.

In the study, one of the participant’s responses related to how the professional defined the model, saying it was “where someone stands up and says, ‘This is what it is, here’s a problem, this is how we went about trying to solve the problem, here are the results and we thank you for coming.’” Another Extension professional referred to the expert model as a “bucket-filler” approach where “you’re just giving information out to a person in a one-way flow.” Yet another participant referred to it as a “top-down approach rather than a grassroots or front-line staff-on-up issues ... identified as a need.”

Uses of the Expert Model

The Extension professionals involved in the 2018 Vines study used the expert model in a variety of programs, as seen in Table 1. In the study, four themes emerged that define why Extension professionals use the expert model. These are explained in greater detail below.

- To provide education for specific purposes.
- To meet specific audience or community needs.
- To introduce other Extension programming.
- Personal preference of the professional.

To Provide Education for Specific Purposes

Most state Extension organizations partner with various government agencies to provide certification for mandated programs. Examples of these provided by the professionals in the study included child care provider training, parenting classes for people going through divorce, chemigation certification, and private pesticide training. In these cases, the content and delivery method are often dictated by the sponsoring agency.

Another specific purpose for which Extension professionals considered the expert model of program delivery to be most effective was the delivery of research-based information. Crazy Cat (FCS, State 1) said:

I think we cannot get away totally from the expert model because the important part of the expert model is that you are sharing research-based information. And people still want to hear that. They still want that. They still need — a lot of cases — need it, and that might be the only way of actually hooking — if you want to say that — someone into understanding what you’re talking about, getting involved in what you’re talking about. So sometimes it has to be that expert model because first of all, you have to get people excited about things. And so, a lot of times the expert model is the only way.

Table 1. Examples of programs in which the expert program delivery model was used, as identified by study participants.

Header?		
4-H curriculum	Farm Bill programming	Personal safety
4-H Incubator project	Farm management	Pesticide application
4-H Robotics	Farm policy and outlook	Presentations to civic/service organizations – Kiwanis, Optimists
“Ask an Expert” website	Fertilizer certification	Presentations to general audiences
Bullying in schools	Food preservation	Private Pesticide Applicator Training
Certified Crop Advisor training	Food safety issues – hummus recall	Producer questions
Chemigation certification	Food stamp regulations	Science, Technology, Engineering, and Math (STEM) curriculum and activities
Child abuse prevention training for 4-H volunteers	Grain marketing	Small farmers
Child care provider training	Hand-washing recommendations	Solar energy
Childhood obesity	Healthy living	Strategic planning
Confinement Animal Feeding Operation Training	Homeowner questions	Taxes
Consumer questions	Insect identification	Vegetable production
Crop demonstrations and production clinics	Insect pest management	Veterinary Feed Directive
Emerald ash borer	Livestock nutrition	Water quality
Estate planning	On-farm research results	Water usage
Extension Master Gardener training	Organic gardening	Wind energy
	Parenting class for people going through divorce	
	Pasture, range, and forage insurance	

Sam (ANR, State 2) shared that the expert model allowed him to share the latest research with clientele. He said with this model he could “listen to state specialists talk about the latest research they’re doing and bring that out to the clients.” Pookie (FCS, State 2) said this model worked in teaching food preservation and food safety where “there’s no discussion on what is safe and what’s not as far as proper procedures.” Tanner (4-H, State 2) said he used this model to let the research “speak.” Frosty (4-H, State 2) added that this research basis is what differentiates Extension from Google or bloggers. He said:

Well, I think that is pretty accurate. I think that’s often how we describe ourselves, as being the non-biased, research-based information, and that differentiates us from a Google answer or from the blogger who just is putting up an answer. That our answers should be different because we bring an expertise to a specific topic.

Extension professionals also used the expert model to provide informational programming related to government legislation or institutional policy. Like the mandated programs, the information regarding these topics is very specific and does not leave much room for interpretation. Extension professionals feel their main role is to make the clients aware of the rules so they can implement changes as needed in their practice. Examples include 4-H volunteer child abuse prevention training, Farm Bill information sessions, and training related to the Veterinary Feed Directive (VFD), Confinement Animal Feeding Operations (CAFOs), and Extension Master Gardeners.

Excerpts from interviews with the Extension professionals are provided below related to these specific types of programming. See the appendix to read additional direct quotes from the professionals explaining their use of this model for some specific programs.

- 4-H Projects.
- Confined Animal Feeding Operations (CAFOs).
- Certified Crop Advisor.
- Child Care Provider Certification.
- Estate Planning.
- Fertilizer Recertification.
- Invited Programming.
- National Initiatives – STEM.

- “Necessary, but not exciting” programs (e.g., Taxes, Estate Planning, Policy).
- “No room for discussion” programs (e.g., Veterinary Feed Directive and Child Abuse Training).
- Programming on Issues Identified at the University.
- Shaping the Future for Community and Society.
 - » 4-H Volunteer Policy.
 - » Early Childhood Education for Child Care Providers.
 - » Prevention Programming.
 - » Water Quality.
- Statewide Farm Management Training.
- Veterinary Feed Directive.

Some Extension professionals reported other types of programs that require the expert model of program delivery — those whose purpose is primarily to provide information or raise awareness. The subject matter revolves around common questions. Extension professionals reported delivering this content in face-to-face environments, through webinars and through videos. The idea of using the expert model to present new ideas and concepts is highlighted in two responses. First, Silverado (4-H, State 1) discussed its use in introducing new youth curriculum (STEM):

The expert model, I’ve thought about that a little bit through this morning. It might be such where you are introducing new ideas and new concepts to clientele that may not be aware of, for example, new technologies that are available or are coming down the pipe there, that hopefully it can stimulate further discussion with clientele then and give them food for thought, and perhaps a little more of a challenge to use that. You might be introducing new curriculum to youth, or adult leaders in some cases, and I use, at least on the youth component, some of the national drives right now are involving STEMs: science, technology, engineering, and mathematics. And so more of the expert model would work probably better in that delivery, implementation, design, and evaluation of that type of a program effort versus coming more from the engaged model. So, try to get them to think outside of the box.

Conan (ANR, State 1), said something similar regarding increasing awareness of irrigation management practices:

I guess in the area of expertise that I work in, in irrigation management, a lot of producers don’t

realize that they could make improvements in their system. As long as the pivot is spreading water and they're getting good yields, why would they make any changes? They've irrigated that way for the last 30 years, so obviously, it's working. So, they may not understand that they could make improvements, and pump less water, and leach less nitrogen into the groundwater, and reduce fuel costs. Just making them aware that there may be issues out there might get them thinking that they need to come to another program and get more detailed information.

Another area in which Bluestem (ANR, State 1) indicated he used the expert model was to deliver information to a large audience about a new product. He said:

Yeah. For example, a subject model around, I'll pick one here, a product called Pasture Range and Forage Insurance that I've provided educational resources on. That expert model really fit there in terms of just explaining the program, explaining how it worked, helping clientele understand how they might utilize it, getting some examples in a webinar-type setting, and then allowing them to go explore that for themselves, and then if they have questions can come back, and ask on those. That would be, I guess, an example of the expert model where I delivered that kind of scenario recently.

See the "To Provide Education for Specific Purposes" section of the appendix to read additional responses from Extension professionals on this topic.

To Meet Specific Audience or Community Needs

One Extension professional uses the expert model because he feels it is what some audiences expect from Extension. Other professionals interviewed in the study indicated that they use an expert model when an audience is only interested in raising awareness of a topic and does not want to invest further time and resources in working around the topic. Similarly, this model was used by Extension professionals to address individual questions related to specific needs. The expert model was also preferred by some Extension professionals when addressing a large audience or using an online delivery method. Another instance where the expert model was preferred was in emerging issues where a quick response was needed. Yet another Extension professional spoke of using the expert model to maintain control in discussion of controversial, emotionally charged issues. Another Extension professional specified that the age of the

audiences is a determining factor, sharing that he uses the expert model when working with audiences in grades K to 12.

See the "To Meet Specific Audience or Community Needs" section of the appendix to read Extension professionals' perspectives related to these uses of the expert model. This section is organized according to the below audience attributes, delivery methods, and community needs, as well as other motivations to use the expert model.

Audience attributes:

- Age of the audience.
- Countering misinformation.
- Individual questions (i.e., crop production, insect identification, pesticide recommendations or ration balancing).

Delivery methods:

- Field day demonstrations.
- Webinars.

Community needs:

- Controversial issues.
- Timely, emerging issues (i.e., bullying in schools, hand-washing recommendations, energy development, water quality, food safety).
- Raising awareness or answering specific questions.

Some Extension professionals spoke of using this method when covering multiple topics in a large geographic area, covering the state in a specific topic area, or when they are dependent on other experts in a specific content area. The expert model works well when connecting local community members to subject matter specialists in areas outside the professional's area of expertise. Programs that repeatedly utilize the same specialists from year to year allow audiences to develop relationships with university specialists, establishing trust not only in them, but also in the organization. Finally, there are some cases where the Extension professional is not legally able to make recommendations and need to rely on other experts.

Sam (ANR, State 2) highlighted the risks associated with using an expert model in a situation where the Extension professional is not the most knowledgeable person on the topic, or where they are among other experts. He spoke of the importance of knowing not only the topic, but also identifying potential questions and being willing to

say “I don’t know” when using this model. In addition, he emphasized the importance of following up on a topic with a program participant as promised in order to maintain credibility.

To Introduce other Extension Programming

Extension professionals spoke of using this model of programming to help raise “public awareness” of Cooperative Extension in settings with large audiences who are new to Extension. Conan (ANR, State 1) said:

Yeah, certification, or those large audiences, that we’re just trying to get our names and faces out in front of people, letting them know what expertise we have, so that when there’s a field tour or another talk — a specific talk — that maybe they would come listen to us then.

Healthy Lives (FCS, State 1) said she uses the expert model with new audiences in the community to gather feedback for needs assessment. She said:

I also kind of see it in — sometimes there’s one-time presentations that you have to do for the community, and so sometimes it’s around your area of expertise, so it’s a little bit more of, you are the expert. But, again, I still try to get them involved and kind of see what else that they would like to learn, more than me just telling them what they should learn.

In some cases, once awareness is raised through the expert model, the professional can then get people more involved in using the engaged approach. In one example, Corn (ANR, State 1) spoke about how he did this to provide educational programming related to the spread of the emerald ash borer. In the initial stages, he used the expert model to make people aware of the situation, providing information about the pest and potential damage it might create. Then, as individuals become more aware of the pest and its impact on their lives, they became more involved in developing opportunities to manage the pest based on their observations and insights (local expertise), representing a shift from use of the expert to the engaged model of educational programming.

This shift from expert to engaged was echoed by Zoe (ANR, State 2) in regards to a program that developed at the state level for delivery in an expert model related to water quality addressing the problem of algae blooms. After awareness was raised through the expert-model program, the agricultural producers serving as the end

users became involved in determining next stages related to research and education.

Another Extension professional echoed these approaches saying she will get the “ball rolling” with the expert model. She then increases producer involvement, even with mandated programming, to create more of an engaged approach. At the time of the study, she was proposing a process for developing programming to recertify fertilizer licensees using an engaged model, rather than the expert approach that is typically used.

See the “To Introduce other Extension Programming” section of the appendix to read more feedback from Extension professionals related to this topic.

Personal Preference or Attributes of the Professional

Frosty (4-H, State 2) shared that he used the expert model most frequently because that is how he was educated. He said:

And part of that just becomes, because of things we’ve done traditionally, over time, where we have — you know, we’ve been to the training that the university has provided for us, and so then we’re coming to train volunteers, and we’re coming to train 4-H youth on a specific subject matter. And so, because the organization hasn’t shifted entirely to an engaged model, those are all still in the format of the expert model delivery.

Corn (ANR, State 1) echoed this but also shared that he feels using this model is what is expected of him and rewarded by the university.

There’s a number of reasons [to use the expert model]. One is, it makes me feel good. Secondly, it looks good on my annual report — makes administrators feel happy that they have somebody out there in an Extension educator position that can teach. We’ve stressed that at the university, Extension people are teachers.

Likewise, Pat Bean (4-H, State 1) prefers the expert model as a way in which the Extension professional can get something done quickly.

The additional time required to use the engaged model was the most frequently identified barrier to using it. Successful Extension professionals regularly have multiple requests for their time. Suzie (4-H, State 1) talked about using the expert model of program delivery to help manage her time when her schedule became overwhelming. Sam (ANR, State 2) shared that he used

both models, but tends to go from engaged to expert. He preferred the expert model because he felt it really was the best fit for his personality. He said he often begins with an engaged delivery model and then “shifts to an expert model” in order to “get it done.”

Other times, Extension professionals talked about using the expert model to build their area of specialty and to receive administrative support and personal gratification. In addition, one Extension professional spoke of using this model to maintain control. (Olive (ANR, State 1) said, “But it’s easier, it’s easier to do a program as an expert lecturer. It’s easier to deliver because it’s — you know, you have control over the audience and you can give them the information that you think they need” when presenting on a controversial topic. Olive goes on to share how she maintains control to help program participants stay on topic. However, Suzie (4-H, State 1) talked about how using this approach can hinder engagement with people in the community. Suzie said:

And with an expert model, we’d be, “Hey, it’s not convenient for me to do it at this time or be there till 5:30 or whatever. So, that’s what I’m going to do.” If we kind of dig in our heels with an expert model, we’re the only giver of the information, we’re the knowledge holders, the expert model, and therefore you will do it when I want you to do it. People aren’t going to be as engaged in learning about things if you’re not really aware of what their needs are as well.

See the “Personal Preference or Attributes of the Professional” section of the appendix to read more insights from Extension professionals related to this topic.

Cooperative Extension’s Expert Educational Approaches

The first publication in this series, “Extension Program Delivery using an Engaged Model” (https://www.pubs.ext.vt.edu/content/pubs_ext_vt_edu/en/ALCE/alce-272/alce-272.html), explained that there are four educational approaches through which Cooperative Extension works — service, information delivery, facilitation, and transformative education (figure 1). Facilitation and transformative education emphasize the role of Cooperative Extension as being able to provide process for community education, are consistent with engaged program delivery, and emphasize public value (Franz 2013).

Service and content transmission are associated with the expert model of program delivery. The emphasis of the product here is with the individual, so the benefit of this model of program delivery is primarily private value. Cooperative Extension has historically provided many services to clientele, such as soil testing and pressure canner testing (Franz and Townson 2008). Franz and Townson also include Extension educators’ service on

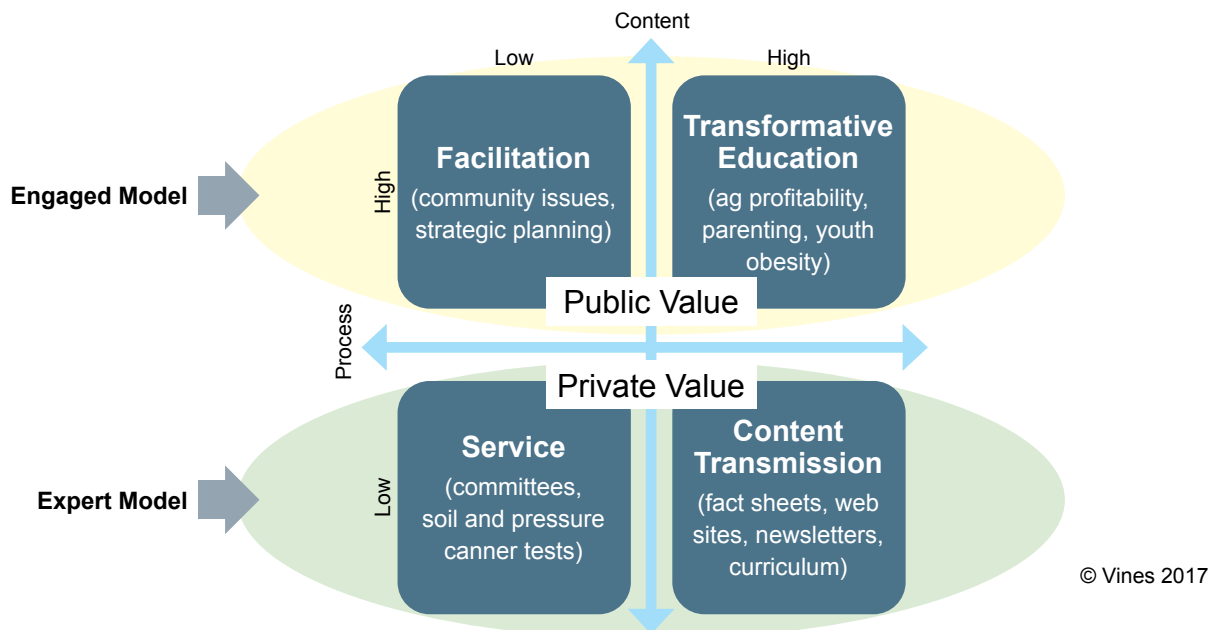


Figure 1. Educational approaches for Cooperative Extension, adapted from Franz and Townson 2008, Franz 2013.

local committees in this role. Lynton (1996) referred to the university as providing “many kinds of routinized services, from soil testing ... and standard surveys ... to the dissemination of informational material and training sessions in certain skills provided by a variety of units” delivered “either *pro bono* or on a fee-for-service basis” as non-scholarly means of conducting outreach (p. 38). Lynton also classified this work as “valuable” but non-essential and mentions the opportunity for outsourcing some of the services that are more “repetitive” in nature (p. 38). In many cases, the services are based on technology that has been in place for decades and is stable and routine. Many of the services and the results they provide are mechanized. These services also typically represent a user-driven, informal learning approach.

Traditionally, Cooperative Extension provides materials in printed formats for content transmission. Today, many of these materials are more accessible for larger audiences online and from numerous sources. Similarly, more of the service approaches have provided mechanisms for people to accommodate online and contactless methods of interaction. Much of this was happening as a result of technological advances as well as increased access and use of the internet, but it has also increased as a result of the COVID-19 pandemic.

Theoretical Underpinnings of the Expert Model

Traditionally, the work of Cooperative Extension has been described using E. M. Rogers’ Diffusion of Innovations theory, first developed in 1962 and revised

several times since then (Foley 2004; Franz et al. 2010; SeEVERS and Graham 2012). This theory is based on the concept that education targets innovators to adopt innovations that improve processes or products (figure 2). Based on the success of the innovators, others who are more risk-averse will either adopt or reject the change (Rogers 1995). The success or failure of the innovators then drives adoption decisions by other members of the community. The other members of the community are classified by stages of likely acceptance of innovations: early adopters, early majority, late majority, or laggards. Innovators may also participate in re-invention of the innovation to better meet local needs, which, again, may in turn impact the adoption decisions of other community members. The end goal is easily evaluated through determination of how many people have adopted the innovation. Impact can be calculated based on the adoption and estimates of what value that adoption has on both an individual and societal level.

Rogers’ 1995 theory aligns well with an expert model of Extension program delivery. This model describes the role that Extension was designed to play in taking research and education from the university to the community, often through demonstration work. Rogers’ theory emphasizes the adoption of identified technologies and innovations. Focusing on technology and innovation works well when trying to resolve a simple challenge. Rogers’ model was developed to help describe how adoption could be achieved with cultural sensitivity. However, Rogers’ original model did not take into consideration the unintended consequences that may occur because of adoption of the innovation.

Conceptualization of Rodgers’ (1995) Diffusion of Innovations



Progress occurs through communication over channels occurring time within a social system. The expert develops the innovation. The funder is a sponsor.

© Vines 2017

Figure 2. The expert model of program delivery is based on Rogers’ 1995 Diffusion of Innovations theory. In this model, Extension experts are involved in development of the innovation and in the management of evaluation and the communication channels.

Roles for Faculty and Partners in an Expert Approach

The roles of faculty and partners are coupled with the educational approaches and theoretical framework for the expert approach in figure 3.

Cooperative Extension at the Local and Campus Level

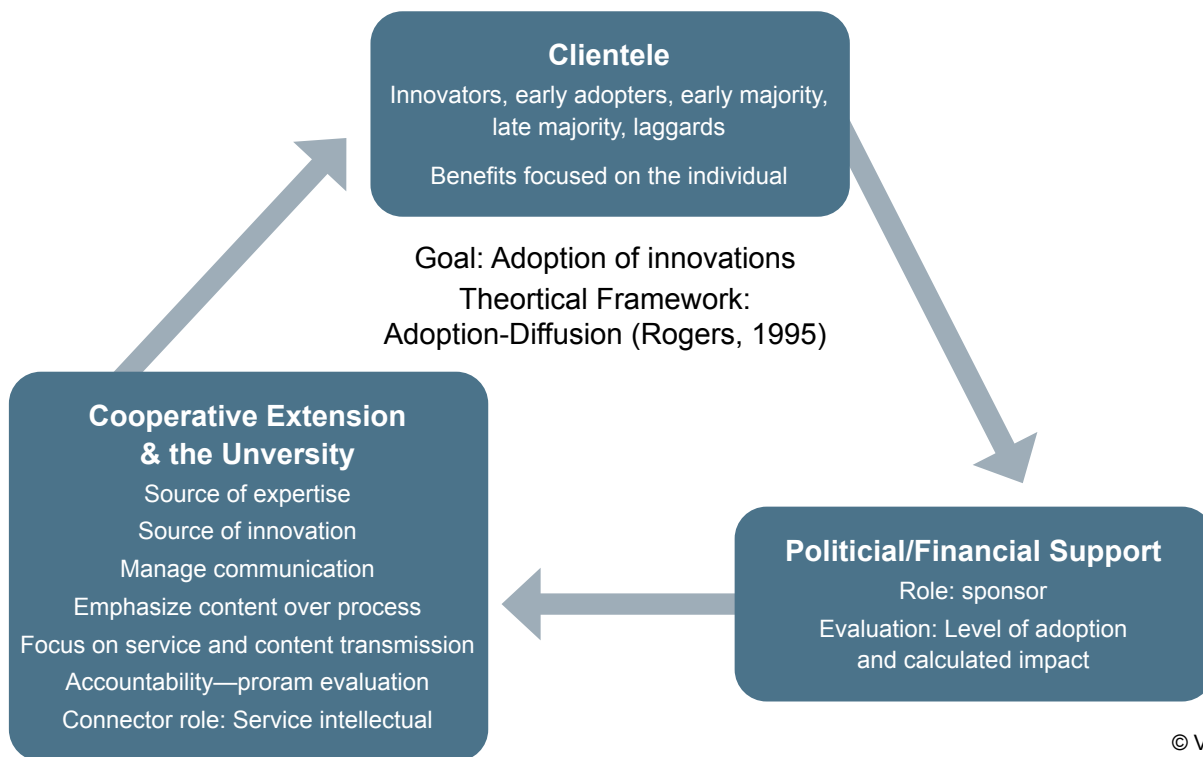
Rogers’ 1995 model differentiates between centralized and decentralized diffusion decisions. The centralized approach uses a hierarchy where decisions about technologies or innovations to be promoted are made in a top-down approach. In the case of Cooperative Extension, the decision-making might begin at the university level. The recommended change is then provided to a change agent or Extension professional, who works in the community to encourage adoption of the change (Rogers 1995).

On the other hand, a decentralized diffusion system has a flat structure where a local unit determines the technology or innovation to be promoted and then interacts directly with adopters to customize and

enact adoption of the innovation. In the decentralized model, power is shared within the local system. Rogers defined diffusion in the decentralized system as being “spontaneous and unplanned,” and saw the decentralized diffusion system as being “most appropriate ... for diffusing innovations that do not involve a high level of technical expertise, among a set of users with relatively heterogeneous conditions” (Rogers 1995, 369). The adoption of the innovation is based on what Rogers described as “a convergence type of communication, in which participants create and share information with one another in order to reach a mutual understanding” (Rogers 1995, 370).

Rogers’ perspective for centralized and community-based Extension faculty is consistent with the service intellectual tradition as defined by Peters, Alter, and Schwartzbach (2010). In this tradition, the role of the faculty member is to respond to questions and provide services, and the Peters et al. define the public role of faculty in this tradition as “limited to the provision of facts, knowledge, technical assistance, and technologies” (Peters, Alter, and Schwartzbach 2010, 52). Faculty operating with the service intellectual approach in Cooperative Extension most often use the expert model of program delivery at all levels throughout the organization.

An Expert Model of Program Delivery for Cooperative Extension



© Vines 2017

Figure 3. A conceptual framework for the expert model of program delivery for Cooperative Extension.

In the conceptual framework in figure 3, the box depicting the role for the university at all levels is the largest, representing the multiple responsibilities assumed by the university. The university is seen as the primary source of expertise and provides the innovation. In addition, the communication is generally one-way with the university sharing recommendations with the community. However, the Extension professionals in the study shared that although the flow of information may be one-way, they still interact with their clients. They define this interaction as involving discussion and receiving feedback. In addition, issue areas or themes may be developed using this model at the state and federal level. However, specific programming or the development of innovations associated with that theme are often determined by the university.

Clientele

As indicated above, in the expert model, clientele may participate in listening sessions or participate in other needs-assessment activities, and also participate in providing feedback associated with the programming. In addition, interaction with clientele in an expert model as described in the study is more limited as one-time seminars or events in contrast to the long-term, ongoing educational programming defined for the engaged model. Clientele are generally the recipients of programming or innovations that have been developed for them. Many of the services provided in the expert model are based on longstanding research allowing educators to develop education or processes related to the specific situation of the client. Likewise, research findings are also often used to develop publications, fact sheets, websites, videos, and podcasts that clientele can access related to their specific needs.

Political and Financial Support

In the expert model, funds are generally provided from government sources to serve clientele. Extension organizations have varying flexibility in how this money can be used to meet community needs. Often Cooperative Extension will provide data to document how those funds have been used. Data may include participant counts and calculations of benefits. Participant testimonials may also be provided or participants may be encouraged to contact these sources of support directly to encourage continued support. In some locations, Extension may charge a fee for some services to cover the costs incurred for delivery of the service.

Partners

The number of partners identified by the interviewees when using the expert model was smaller than those involved in engaged programming (see “Extension Program Delivery Using an Engaged Model” at https://www.pubs.ext.vt.edu/content/pubs_ext_vt_edu/en/ALCE/alce-272/alce-272.html). These include political and government funders mentioned above, but also organizations that oversee certification programs for which Cooperative Extension often provides training and, in some cases, testing. Others include local service clubs, community groups, and campus-based specialists.

Evaluation of Success for the Extension Professional Using the Expert Model

The traditional, expert model of program delivery emphasizes adoption of new practices or use of educational materials as a measure of success. These measures are very much numerically focused. How many people attended the session or used the resources? How many people indicated they might change their behavior? Additionally, what members of the community participated in the programming? Generally, Extension impact is calculated and predicted by considering how changes in individual practice make a difference at the community or societal level.

Conclusions

The expert programming model for Cooperative Extension serves a beneficial role for higher education in providing research-based information and expertise to society. This model provides education and services most frequently directed for the purpose of individual gain or benefit. There are specific situations where this model is most appropriate. Expert model programs still frequently involve communication with clientele, but generally the subject-matter expertise of the Extension professional contributes most heavily to the end solution which can then be adopted for use by the clientele. Advisory boards can assist in direction and responses, but when Extension professionals use an expert approach, the advisory board generally serves more as a sounding board or provides guidance for overall program direction rather than being involved in problem and solution identification.

There are both benefits and challenges associated with using the expert model of program delivery for Cooperative Extension (table 2). One benefit of this model is that solutions may be provided in a more time-efficient manner. This is useful in emergency situations,

when the answer is very clear, or when the use of the solution has a limited audience. In addition, the expert model emphasizes access to high-quality, research-based information that can be used to develop sustainable solutions. The expertise of the university can be a critical resource for the long-term success of society in dealing with complex issues. However, this expertise must be considered with respect for other resources, especially those associated with specific contexts that may be outliers from the norm.

Table 2. Benefits and challenges associated with using the expert or more traditional model of Cooperative Extension program delivery.

Benefits	Challenges
<ul style="list-style-type: none"> • Quickly implemented. • Focus on university recommendations and knowledge. • Solution more easily derived using scientific method. • Easier than engaged model to define impact. 	<ul style="list-style-type: none"> • Overly focused on the expert. • Limited community interaction with expert, failing to serve university-community conduit role for Cooperative Extension. • Difficulty to remain “current.” • Research findings focus on central tendencies, and outliers are often overlooked so context of specific instances is important. • Evaluation methods may miss unintended outcomes.

A challenge associated with the expert model is that it can become centric on one individual, limiting possible responses to the breadth of the knowledge of community members. People using this model need to have others around them with similar or complementary expertise and constantly remain abreast of all possible literature in this topic area. A frequent weakness of the model is that the expert may be seen as separate from the community or may feel they know what is best for their community members without interacting with them. This is especially true regarding community members from previously underserved or excluded populations. The best way to overcome this is by developing extensive

networks in the community that are representative of the population, using more engaged approaches. Another challenge for the expert model is that impacts are often derived from indirect data and assumptions may not represent the true desires of the community. Both positive and negative long-term outcomes associated with the programming may not be recognized in the evaluation of expert-model approaches.

Extension professionals who use the expert model as their default model for programming but would like to consider taking a more engaged approach with stakeholders may consider the following steps:

- Establish an advisory board, or evaluate it if one already exists. Consider the expertise that is represented and missing. If establishing a new advisory board, what expertise would be beneficial in identifying the needs of your community? Invite these people in to talk about this process. To evaluate an existing advisory board, invite them to help assess the expertise that exists and that is missing, and extend invitations to those that need to be added. Be certain to include members of previously underserved or excluded populations.
- **Remember — community has many definitions.** In this case, focus on a specific topical area where change is needed, and start by defining the community. Evaluate how many advisory boards you might need. Think about how the programming reaches different communities. This may make it easier to develop communication channels and schedule meetings for the advisory groups that are more likely to match their interest and availability. Be open to meeting where community members are — not where it is most convenient for you.
- Avoid the trap of “doing it yourself” by asking people to contribute their specific expertise through the work of project teams. Ask them to provide reports that reflect their expertise in the work of the advisory board or taking leadership for different parts of programming where they use their expertise. Constantly evaluate the expertise represented and the expertise needed as the focus of groups change.

Other publications in this series will assist Extension professionals as they work through these processes with advisory boards and communities.

References

- Fessler, D. R. 1964. "Alternative to Extension's Future." *Journal of Extension*, 2, no. 3 (Fall): 170-172. PDF retrieved from <https://archives.joe.org/joe/1964fall/index.php>.
- Foley, G. 2004. *Dimensions of Adult learning: Adult Education and Training in a Global Era*. Maidenhead, U.K.: Open University Press.
- Franz, N. K. 2013. "Improving Extension Programs: Putting Public Value Stories and Statements to Work." *Journal of Extension*, 51 (3) <https://tigerprints.clemson.edu/joe/vol51/iss3/9/>
- Franz, N. K., F. Piercy, J. Donaldson, R. Richard, and J. Westbrook. 2010. "How Farmers Learn: Implications for Agricultural Educators." *Journal of Rural Social Sciences*, 25(1), 37-59. <https://egrove.olemiss.edu/jrss/vol25/iss1/4/>.
- Franz, N. K., and L. Townson. 2008. "The Nature of Complex Organizations: The Case of Cooperative Extension." In *Program Evaluation in a Complex Organizational System: Lessons from Cooperative Extension*, edited by M. T. Braverman, M. Engle, M. E. Arnold, and R. A. Rennekamp, 5-14. San Francisco: Jossey Bass Education Series.
- Geiger, R. L. 2000. *The American College in the Nineteenth Century*. Nashville: Vanderbilt University Press.
- Geiger, R. L. 2004. *To Advance Knowledge: The Growth of American Research Universities 1900-1940*. New Brunswick, NJ: Transaction Publishers.
- Geiger, R. L. 2005. "The Ten Generations of American Higher Education." In *American Higher Education in the Twenty-First Century*, edited by P. G. Altbach, R. O. Berdahl, and P. J. Gumpert, 38-70. Baltimore: The Johns Hopkins University Press.
- Gharis, L. W., R. Bardon, J. L. Evans, W. G. Hubbard, and E. Taylor. 2014. "Expanding the Reach of Extension Through Social Media." *Journal of Extension*, 52(3). <https://doi.org/10.34068/joe.52.03.03>.
- King, D. A., and M. D. Boehlje. 2013. "A Return to the Basics: The Solution for eXtension." *Journal of Extension*, 51(5). <https://doi.org/10.34068/joe.51.05.03>.
- Lynton, E. A. (1996, Reprint 2016). Ensuring the Quality of Outreach: The Critical Role of Evaluating Individual and Collective Initiatives and Performance. *Journal of Higher Education Outreach and Engagement*, 20(1), 35-44.
- Peters, S. J., T. R. Alter, and N. Schwartzbach. 2010. *Democracy and Higher Education: Traditions and Stories of Civic Engagement*. East Lansing: Michigan State University Press.
- Rogers, E. M. 1995. *Diffusion of Innovations*, 4th ed. New York: Free Press.
- SeEVERS, B., and D. Graham. 2012. *Education through Cooperative Extension*, 3rd ed. Fayetteville: University of Arkansas.
- Smith-Lever Act, 7 C.F.R. § 13:3-8. (1914) 2008. <https://www.nifa.usda.gov/sites/default/files/Smith-Lever%20Act.pdf>.
- University of Florida. n.d.. "Land Grant and Sea Grant: A Timeline of Federal Laws Affecting Public Higher Education and Extension." Accessed Aug. 31, 2023 <http://ifas.ufl.edu/land-grant-sea-grant-timeline/>.
- Vines, C. A., L. H. Watts, and W. R. Parks. 1963. "Extension's Future." *Journal of Extension*, 239-246. <https://archives.joe.org/joe/1963winter/1963-4-a7.pdf>.
- Vines, K. A. 2018. "Exploration of Engaged Practice in Cooperative Extension and Implications for Higher Education." *Journal of Extension*, (56)4. <https://tigerprints.clemson.edu/joe/vol56/iss4/24/>.
- Vines, K. A. 2022. "Extension Program Delivery Using an Engaged Model." VCE Publication ALCE-272P. https://www.pubs.ext.vt.edu/content/pubs_ext_vt.edu/en/ALCE/alce-272/alce-272.html.
- Williams, R. L. 1991. *The Origins of Federal Support for Higher Education: George W. Atherton and the Land-Grant College Movement*. State College: The Pennsylvania State University Press.

Appendix

Educator Interview Responses Related to the Expert Model of Program Delivery

This appendix includes lightly edited relevant quotes from transcripts of study participant interviews, organized by topic area. The sources are identified by the pseudonym chosen by the participant, their program area, and their state (State 1 or State 2).

To Provide Education for a Specific Purpose

4-H Projects

I think there are still times when there are people that want specific knowledge. To me, I see a good use of the expert model is — so we have 200 different 4-H projects, and so I'm not going to be able to be the expert of any one of those different projects. But if I focus in on two or three of those projects, and I know them inside and out, and my colleagues can call on me — like, so one would be robotics, and so they don't have to be the robotics expert. But if they have a youth that is struggling with a robotics question, they could send them to me.

Meanwhile, I don't have to be the goat expert, but then I can facilitate still the goat questions by either tracking the resource down or the person to do that. So, I still think part of our strength with Extension is having that expertise that we could bring, and those are the times when people want specific answers. Sort of they need that answer and they either don't have the time to facilitate or participate in the engaged process, or they don't have the capacity. They're looking towards the expert piece. – Frosty (4-H, State 2)

Confined Animal Feeding Operations (CAFOs)

Well, it's probably more these types of things where there is not a lot of leeway. I mean we try to do as much as we can but kind of like when there's different rules, licensing and that type of things, very specific laws that have to be — that are administered by the state and we have to pass these laws — I should say pass these — do the training according to whatever these laws are and some of that might be national type trainings for the environmental things, or different trainings

they have — as opposed to use of — when we look at CAFOs, which are confinement areas, or how they handle their waste material because those are environmental issues and we'll do some training for this and don't have a lot of leeway on this — these rules that they have to follow. There are sometimes field days, and this type of thing, to get input from everyone involved like community, and farmers, and this type of thing, but there's so much — there're some of the things within that have to be, expert model that needs to be used when you deal with these types of issues. – Rocky (ANR, State 1)

Certified Crop Advisor

Well, a lot of that's just the mandated programs. We got pesticide education, we got fertilizer education. We have CCA (Certified Crop Advisor) credits, different things like that, where there are certain things that have to be taught. So, a lot of the farmers don't exactly know what that is. They're not real thrilled about it, so it's hard to develop those, what I was talking about earlier, fans of the program. They just have to come. So, I would use the expert model as far as that, but I go to my advisers to talk about what is the best way to deliver that. But you're never going to develop them as real, "Oh, this is a great idea [laughter]." So, they either believe it's a great idea because of the community around them or they don't, so you just kind of go with that. But that's about the only time I really use an expert type model. – Fenster (ANR, State 2)

Child Care Provider Certification

Well, it depends on what kind of programming it is. Right now, the programming that I'm involved in is early childhood education, and we're working and collaborating with a lot of state partners who actually require certain training be taken with licensed child care providers. So, in that regard, we probably use an expert model because it's training that they (clientele participating in the training) don't choose — or they don't help develop — they're just required to have because of background information.

Usually the states do (require the certification), and in this case if you're licensed and want to keep your license, then you're required to have this training. It's a little bit like certification or something like that. And most states have some sort of system that there is required training in order to be, like I say, be licensed or certified or whatever you want to call it, so that they can

say, “Yes, you’re sending your child to a licensed facility and we’ve been inspected, and we’ve met the criteria to be licensed,” and sort of that affirmation, so that parents know that supposedly it’s a safe and quality educational place [chuckles] to send their children.

Right now, it fits the situation — what is needed by — and, like I say, the clientele that we’re serving with this, it’s needed because this is training that’s required that they have. They don’t have a choice. They have to have it. It’s not been identified by them as being needed. It’s been identified by somebody else, and being in the middle of that is — being in the middle of those requirements right now, and the timeframe that they have to get the training, is making it necessary to use that expert model. That, “I’ve got all the information you need. Just come to the training and you’ll get it.” [laughter] That kind of thinking, you know. – Sandy (ANR, State 1)

Estate Planning

Yeah. So, a couple that I can think of, one is when we get closer and closer to the professional services that farmers use, as an example, that they need, or like estate planning. Estate planning involves, really, a lifelong of accumulated assets in a family business that may be moving to the next generation. And in that case, there’s so much reading that could be done by the farmer or manager about that. And sometimes they just want it boiled down. And they want to go to a meeting and kind of get the essence of the options, and what to do next to make sure that their son or daughter or their grandchild has an opportunity to farm sometime or (stay) in the business. – Parker (ANR, State 2)

Fertilizer Recertification

Well, like I say, I would use (the expert model) in — I use it more quickly in regulated programs. But in the pesticide re-certification, in (this state), we have fertilizer certification program. So, those I’d just consider, kind of, canned curriculum that we get handed from the state, from somebody that wrote it in a state office. But I use that expert model more there. Trying to study up on my own, become this prepared expert, deliver a program for an hour and move on. – Maudine (ANR, State 2)

Invited Programming

I think that sometimes if a specific request comes in from clientele where they are specifically requesting a certain topic, and sometimes they may

even have in mind a certain speaker or presenter. So, that obviously lends itself well then within (the expert) model. When somebody is calling in for a question and asking me because they don’t have that, again, seems to — I use probably that expert model, because I’m answering a question or giving them information that they’ve called about. – Tanner (4-H, State 2)

I guess if you are asked to come to a setting and the person that’s setting it up said: “This is what we need.” And I guess you’re sort of engaging with the director, but you might not be engaging with the audience. ... Like I said, I don’t use the expert model very often. Okay, maybe it’s with food stamp recipients, and they need to learn what they can and can’t spend that on, and they might need to learn how to manage it better. And so, that might be a case where you’re coming in as the expert and giving them those bits and pieces of information. – Mary (FCS, State 2)

National Initiatives – STEM

Well, if you’ve got the example I just gave you, if you’ve got STEM as being one of the national initiatives from the president all the way down because we need to have more, build skills in knowledge-based some of our youth for being future scientists. That would be one way to introduce that in. So, you would design your program and implement it in your teaching different aspects and concepts of science, technology, engineering, your math, for example, to whatever, whoever it might be, whether it’s a youth audience. We have kind of focused on both of those — either adult and youth audiences — and then you turn around, in say six months, evaluate your previous audience as to there’s still their understanding of those basic concepts for it. – Silverado (4-H, State 1)

‘Necessary, but not exciting’ programs – Taxes, Estate Planning, Policy

The only times I can think I use the expert model is just when I think it’s a program that’s necessary. I’m one that will just jump in both feet, and do it, and just kind of see what kind of response. It does not happen that way very often, but from time to time, you’ve got to present a program that you know if you just tried to advertise it, got more involvement, you may not even get anybody at the table to talk about it. Taxes might be something that — who wants to talk about taxes [laughter] in that regard? Or estate planning? Sometimes you present the estate planning program and hope that

people come because farm families don't always like other farm families knowing what they're doing with their property and their estates, and what they're doing in their family models. So, that would be a case where I'm going to present the program from an expert model standpoint, and hope that we hit the target, and people come. Because that is more of a private farm management aspect to their businesses. And the same would be in some discussions with taxes, so that would be a couple examples. But like I said, I, for the most part, spend more time in the engaged model. – Zoe (ANR, State 2)

Sometimes in certain program planning, that's also something that's used. Just examples, I guess, where I use that are like policy meetings, Outlook meetings, when we're presenting information that's pretty specific — it might be fertilizer related, pesticide related, those kinds of things seem to work — that model works fairly well. – Agriculture-58 (ANR, State 2)

'No room for discussion' programs – Veterinary Feed Directive and Child Abuse Training

And so, sometimes we have to be one-way. For example, we have this new thing called Veterinary Feed Directive. And that is information that we really can't decide, "Oh, community volunteers, do we want to go with this new VFD that's out there?" It's like, "Nope. There's no discussion here. Here's how it is. Here's how it's going to be implemented. Here's what you have to do." So sometimes we are the one-way delivery. We're the expert on issues like that. It's also like child abuse training, again, those kind of things. We're the expert person on those types of issues. We're delivering the information. And that's probably where policy and procedure come more into play as an expert model versus the engaged model when you're trying to make program changes. – Tanner (4-H, State 2)

Programming on Issues Identified at the University

I guess I would define it as more a top-down charge for programming. So, that one-way flow of communications would be a little bit. So, in our institution, we have focus points, or themes, or whatever they decide to call it from one year to the next. And so, there is that top-down charge with emphasis in particular programs. And so, in our state, one would be water quality. Another one

along with that would be fertility ... healthy living probably would be another one. Even though everybody knows they're supposed to live healthy. But that's a charge that I don't know if many of us in Extension wouldn't just grab ahold and do that. But because of the emphasis in that area, that would be an example. But that's kind of where I'm coming from with that, I guess. – Zoe (ANR, State 2)

Shaping the Future for Community and Society

- **4-H Volunteer Policy:** Well, this is another question I had to think about a little bit. And the last time that I remember feeling like maybe it was more the expert model was when — you remember when the big upset with one of the universities and all the things relating to the child abuse and things like that that went on at that university? As a result of that, many policies changed within the university system. And once those policies were made at the university level, I kind of felt like we used that expert model to go out and talk to our volunteers and really say, "This is what's changed, and this is why we're doing it." It wasn't like we discussed it. It was more, "This is why we're doing it and it's important that we change this." And that's the one instance I really felt like maybe we did use the expert model within the 4-H program. – Pat Bean (4-H, State 1)
- **Early Childhood Education for Child Care Providers:** The Extension objective of providing early childhood education to child care providers and parents is based on the belief that a good, healthy start in life is imperative to later success in life. We're concentrating on providing a quality learning experience to children in an effort to help them become, more specifically, school-ready — so contribute to school readiness — believing that as we grow and become adults, then success and contentment with life will follow. So, that's sort of the general objective in our approach to providing the foundation for that quality early childhood experience, and particularly in terms of good quality child development that will then contribute to overall school readiness and later success in life, I guess in a nutshell. – Sandy (ANR, State 1)
- **Prevention Programming:** It may not always be the right model. I don't like to get, I guess, locked into any one model because I don't think it's maybe always the right model. There may be situations where if we're really looking ahead and we see a situation coming that we can try to shape the future, so to speak, with good programming or education

or providing something for the producers. There may not even be an awareness that this is going to be a need yet. We're doing more, I guess, preventive types of programming, so then that engaged model may not be the right one because it may not be something the community would perceive as a need yet, and by the time they would perceive it as a need, now you're reacting and maybe you haven't — you're in a corrective phase rather than trying to, I guess, make a better future, for a lack of other words. So, (the engaged model) may not always be the right model. — Agriculture-58 (ANR, State 2)

- **Water Quality:** I think that's one where for instance, some of this water quality work that we're doing throughout (the state) where we, as Extension educators, go to the university or work with legislators, or review literature. And we want to bring that out and share that new information here in the county. We truly are the source of information. We're the ones that are creating the felt need for our clients here in the county to come to those meetings. So, it's not something where the local farmers or local agribusinesses are saying, "Hey, would you put this program on for us?" Or, "This is an idea we have." A lot of what we do is information that is being brought out from the university to share with our clients. So, that's probably when I see (the expert model) being used the most. — Sam (ANR, State 2)

Statewide Farm Management Training

I've developed programs that I've taught around the state by request of other people that have seen me teach and wanted to bring that program to their county with their clientele [in Farm Management]. And nobody else is doing that in the state. So, I guess from that standpoint, when a county has identified that local need, that that would fit for them. I guess, then they call (the) expert. And, humbly, I caution describing myself (as) that, but it happens. And I'm glad to do it. And we've been successful for several years with those aspects of that. Whether it's teaching and writing curriculum and helping people solve problems after the fact. When they have problems with how to do that record-keeping, they have my contact information. And they say, "Well, I'm running reports at the end of the year. How do I get this report to show how I would like it? I know you talked about it in class, but how do I make it work? I know it's in there." And so, we solve the problem. — Parker (ANR, State 2)

Veterinary Feed Directive

I think the expert model, to be effective, needs to understand the learner situation and circumstances, and obviously, the learners, those are diverse, but sometimes these specific issues — I'm going to give another example — Veterinary Feed Directive is one that was in the cattle industry, livestock industry. It's a big issue. It's an informational topic that folks need to have information on in a pretty quick way. So, that's where the learner model — and it's also regulation that maybe we as an Extension educator have no control over. It's more information delivery, things you need to do to be prepared. It's more of a recipe-type scenario than it is a circumstantial scenario where you can change things. I guess that would be my feedback on that. — Bluestem (ANR, State 1)

To Meet Specific Audience or Community Needs

Audience Attributes

- **Age of the Audience:** Well, I guess for me, it's been more — well, initially, when I first started in Extension and especially in 4-H, I always worked with younger audiences, like I tried to target elementary-age youth when I did a lot of my teaching or a lot of my programming. And part of it was, because in their minds, I became the expert. And I didn't like to get into too much of the upper-level high school or even adult teaching because I didn't want to have somebody say, especially with technology, where you usually say, "Well, you did this wrong." Or, "I know how to do this." Or, "I know more than you." And so, that intimidation factor of the expert model was always present. — Frosty (4-H, State 2)
- **Countering Misinformation:** Or if we're doing a food preservation class, you want to come in there as the expert and not just as their friend and say, "Oh, my grandma did it this way." [laughter] And you want to come in as the expert and tell them the right way. So, those are different times when you might want to put on the expert hat. And hopefully the audience will realize why you're doing that. — Mary (FCS, State 2)
- **Individual Questions/Crop Production:** On another token, some of the work I do, there's some facts that I know that are established and they've been established through years of research. And, I can tell a grower, "You know what, if you come into this field with the combine, the way your beans are situated and the height of your pods, you are very likely going to have a disaster." I mean, I can kind

of in an expert way say, it doesn't mean I know everything about growing and farming beans and it doesn't mean they don't have a lot of input as well, but on that specific point and that specific question, I can come across with a more expert, authoritative recommendation, based on knowledge and research. It would be a little bit like I just said. Some cut-and-dried, research-based information that I can impart. You know, if you have soil ridges in your field that are holding up the head of your combine, every inch of height that you raise on that combine is going to be the equivalent to about three bushels per acre harvest loss in yield. I can just tell a grower that and that's based on, you know, multiple years of research, it's a piece of valuable information. Then, they might not know it. So, if I really know my facts, or know this is such and such an insect, or you know, then I would impart that knowledge in that, in an authoritative, probably not the right word, but very, in a very confident fashion and they accept or reject that piece of information as they chose. – Ruby (ANR, State 1)

- **Individual Questions/Insect Identification:** Well, for example, someone brings an insect, I'm a crops educator, but I deal with lawn and garden and insects and a wide array of questions and so on, so if somebody brings an insect into the office and asks me what it is and I say "It's a bedbug," and I would (have) no qualms or questions, because I know for sure that's what it is. I guess that would be the expert model. You know, I know what it is and they are asking me, so, boom, I give them the information. I mean if I didn't know what something was, then I'd say, "Well I'm not sure, it looks like this. I'll have to investigate this more and then I'll get back with you." I guess I'm still not asking for their input. – Ruby (ANR, State 1)
- **Individual Questions/Pesticide Recommendations or Ration Balancing:** Most people view me as a specialist in the areas of animal science and agronomy, and so I get calls related to what pesticide to use, how to balance a ration for my steers in the feedlot, and so they're basically drawing on my expertise or my ability to find that information for them. – Pike County (ANR, State 2)

Delivery Methods

- **Field day demonstrations:** I've used the expert model in teaching the effect landscape position has on the variability of soils, and how one needs to account for that in their farming practices. ... I dug pits in the ground in three different locations within the length of three football fields. And I've done soil

pits, and I talked about how the soil has changed from those three pits, just because of the landscape positioning and how that can affect your agronomic practices, productions of a crop. ... And a lot of people are just amazed and overwhelmed by the sciences associated with soils, especially if they can see it. It's one thing to talk about it, but it's another thing to feel it and see it. – Corn (ANR, State 1)

- **Webinars:** I find the expert model to be applicable for programs, again, where we're maybe addressing a specific topic, a specific issue, or delivery of a webinar or video-based situation, where there's not much, if any, interaction actually with the clientele. It's more just presentation of information, then you're referencing resources, and then giving them the opportunity to follow up with, and then ask additional questions later to address their question. So, I think things are very specific in terms of, I'd say, a formula or a specific set of things that need to happen is where I see the expert model probably being most utilized effectively, I guess. – Corn (ANR, State 1)

Community Needs

- **Controversial Issues:** I've used the expert model another time when we've had a controversial issue arise, and I was facilitating a meeting where we essentially had a couple of experts come, and speak on a topic, and then I facilitated with written questions. People could write their questions on pieces of paper and hand them to me as the moderator, and then the experts would then address those questions. And I used that model because it was such a heated topic that it was a way to help reduce the amount of emotion in the room, to me, and help allow for information to be heard, while hoping to reduce the emotion. – Lydia (ANR, State 1)
- **Timely, Emerging Issues/Bullying in Schools:** Oh, I don't know, I think to some degree the expert model is effective. It is effective. And it depends again on the clientele in my mind a little bit, it depends a little bit on the topic, it depends on the size of the group, it depends on timing a little bit. Because if there's an issue that your community has all of a sudden identified, whether it's bullying in schools or childhood obesity or something, and we have to have a quick turnaround, sometimes it's easy to fall into that expert model trap, if that's what you want to call it. And to go into a school and share information about nutrition or bullying or whatever at that time. But at some point, I still think that we need to step back and say, "Okay, we started with the expert model. Now with this issue, how are we

going to get to the engaged model?” Sometimes we don’t do that. Sometimes it’s easy just to go in and lecture, walk out, and now our job is done. I still think there are times when we need to re-evaluate and say, “Okay now, with that group, how do we go back in and provide more deep, robust, rich educational experience where we can engage in a two-way conversation to solve this issue?” We probably in some cases, don’t do that very well. – Practicum (ANR, State 1)

- **Timely, Emerging Issues/Handwashing Recommendations:** I think another level to think about is when do you go through a process of engagement? You’d go crazy if you try to engage on everything that you did. You wouldn’t get much done. Or sometimes you just simply put out information. For example, if new food safety research indicates you need to only wash your hands 10 seconds versus 20, about all you would need to do tell people to update their information. I don’t think you’d need to engage people before you shared the information. – Catherine (FCS, State 1)
- **Timely, Emerging Issues/Energy Development:** It typically is when a community organization just calls us in to do a presentation on a specific program, or share the outcomes of something, or in some cases, we’ve gotten quite involved in energy development — so they might want information about solar or wind and the impacts, and to provide examples. So, we might come in just to share our expertise on certain topics. It may not be to do any kind of programming. It would just be a matter of sharing our expertise. – Gus (CD, State 2)
- **Timely, Emerging Issues/Water Quality:** Yeah, I guess I wouldn’t really say it’s different, but I think a lot of these mandated programs that we have to do is a good example of expert model. In (this state) we’re big on — and really in Virginia too — the water quality issues are huge. So, a lot of the clientele do not see that as an issue, but we have to really employ an expert model where we come in and say, “Well, this is what you need because of XYZ.” – Fenster (ANR, State 2)
- **Timely, Emerging Issues/Food Safety:** But I think the expert also may see a need to proactively get information out on something. However, their way of doing that may be one way, especially if there’s a very time sensitive element on that. Like, if it’s around Thanksgiving, and I had heard there was some food safety problem with turkeys, I wouldn’t wait until a client asked me about this. I would proactively get out information. Though that may be a one-way model, it may then turn into engage-

ment if I send something out on Twitter or Facebook or something, and it leads to further questions and engagement.— Catherine (FCS, State 1)

- **Raising Awareness or Answering Specific Questions:** But I also recognize there are times, whether it’s by topic or by the person — and I can give you some examples, perhaps, of that — or by the size of the crowd, even, that learner-engagement is a little bit more difficult to achieve, even though I think that’s the preferred model. For example, there might be a topic that’s an informational topic, that a lecture — a one-way communication — might be acceptable. They come to a meeting, they want to hear something about a topic, and then they go home, and that’s the one contact we have with them. There might be an individual who’s not really interested in solving complex issues, not really interested in a sustained relationship. They come in with a bug. They want it identified, and how do you get rid of it? And so, there are probably times that that works well. – Practicum (ANR, State 1)

Other Motivations

- **Covering Multiple Topics in a Large Geographic Area:** Again, I think it’s just the nature, geographically where I’m located. I don’t have other Extension educators around me. The (county offices) are vacant and so those people in the region call me wanting specific information on individual topics. And so, it’s not really where I could sit down and say I’ve got four or five things here that really get grouped into something I can develop a program on. I’m being viewed that way, as kind of an “Ask the Expert” kind of thing. – Pike County (ANR, State 2)
- **Covering the State in a Specific Topic Area:** So, I think, some of the one-on-one individual questions that come in via email, phone call, or they come to the desk, that they’re looking for a specific answer (related to computerized farm record keeping). So, I think when it’s kind of a black-and-white situation, where they are asking a question that is either specific to our county, that if you send them somewhere else, they wouldn’t have that. Or that their answer wouldn’t relate to the environment that we live in, in our county, are some of the dynamics that we’re experiencing in our county. – Frosty (4-H, State 2)
- **Connecting Local Community Members to Subject Matter Specialists Outside My Area of Expertise:**
 - » So, I’ve used the expert model when people call in to the Extension office to ask a certain question. Sometimes, though, it’s not necessarily

in my area, but I know where to find the answer or the other expert to help them find that. – Healthy Lives (FCS, State 1)

- » Grain marketing is another area of expertise that we've been fortunate to have. Not that our experts have all the right answers, but they've done continual looking and the studying and understanding of, maybe, what the global or local markets, how they trend. So, having somebody that has studied and specialized, that kind of puts them in that expert position and allows them to be that expert model for that teaching. And I, by no means, would never feel comfortable teaching in that expert role on grain marketing. I just haven't spent enough time teaching in that area, studying in that area, to even be in the vicinity of even the word, expert. So, I need to rely on somebody else. And my clients continue to ask for that information. So, it's kind of engaged, but yet, I pull in an expert to respond to their needs. – Parker (ANR, State 2)

- **Connecting Local Community Members to Legally Appropriate Subject Matter Specialists:** And there are things that we, legally, cannot do as an educator because we are not attorneys and we're not lawyers. So, we need to rely on experts, whether they are internally in the university or externally, that have all been vetted or cleared by our specialists, and that's a helpful relationship. – Parker (ANR, State 2)
- **Connecting Local Community Members to Subject Matter Specialists through Annual Programming:** We do farm policy and outlook meetings every year. And so, the Farm Bill, federally, there'll be specialists ... their career is based on farm policy, and they study it. They study those thousand-page federal bills, and they boil it down, and they bring to a meeting what pertains to my county. And we say, "Okay, we have grain farmers. We have dairy producers. We have hog producers, beef cow (producers)." Of that thousand-page farm bill, (the specialists) boil it down for us, and present a farm policy. What does it mean to my producers? So, again it's a trust thing. Our participants, our farm managers come knowing that they are trusting in the organization to have done their homework and be able to teach, maybe, what that farm policy means to them. – Parker (ANR, State 2)
- **Expert to Engaged – Raising Awareness:** Normally, it's a community presentation, very surface. We don't get into anything real in-depth. I would just come in and make a presentation. Whether or not it led to — it's kind of the first step in many cases. It

may lead to a more engaged model, but it's often-times the first contact that you would have. And then it kind of lays the groundwork, sometimes for the engaged model, because you're sharing your expertise, and you're showing that — you're building that trust and showing that you do have the expertise to be able to help them deliver other programming. So, it's kind of more surface. – Gus (CD, State 2)

- **Among Other Experts:** I think you use the expert model ... on certain subjects and topics when you feel confident, you understand the science behind the topic or the subject. You're more capable of using the expert model. It depends on your audience to some extent. ... If your audience is senior agronomists, and you want to use the expert model, you damn well better be on top of your game. They'll eat you alive ... and if they do eat you alive, if you're not on top of your game, then you've lost credibility. So ... if I'm going to be the expert on, let's say irrigation management, I better think about all the potential questions and have a great understanding about the science associated with that specific topic, if I'm gonna hang my flag out there as the expert. Otherwise, if I fall short, first of all, you can be an expert and relate to the audience, "I am sorry, but I do not have information on that question," or "I do not know the answer to that question. I assure you I will follow up and get back to you with it." Or, you can say that and not follow up, or you could tell them the wrong information. So, there's, you know, the consequences of wrong information are not good. That is not good. Consequence of not following up is not good. And you're better off just saying okay, I don't know. And that's a point, if you have an audience you might have to say, "Jeez, I'm sorry but I'm just not up to speed on that at this point" ... but if you're going to go all out and fly your flag as an expert, I think you better have your ducks in order. – Corn (ANR, State 1)

To Introduce Other Extension Programming

Emerald Ash Borer

We have this emerald ash borer, and it's new on the scene here. It's just arrived. Well, everybody's in a panic and you see a lot of experts out there from the university world — Extension world — who are sharing what they know about the pest, and what — probably a homeowner, a municipality, a government agency — will need to do in order to manage this pest. As time goes on, there's going to be partnerships, and relationships

developed with these government agencies, and these municipalities, and individuals to see how we can better manage the results of this pest damage. So, there'll be more of an engagement as time goes on. But initially, no one knows anything but us. When I say us, I'm talking about the academic world — about this pest. So, that's an expert model. We do press releases, we do radio. We do television. We might speak at conferences — this pest isn't going to go away so in the coming years there'll be partnerships, relationships — that will develop — that we'll look at the validity of managing this pest, based on what we know. – Corn (ANR, State 1)

Algae Blooms

Another example of a state-originated topic would be fertility. ... But with the algae blooms, and the issues we've had in water quality, and as agriculture impacts that, that's kind of been more of a top-down charge, initially. But as we've gone now, that's kind of switched to where we're using a lot of producers to help orchestrate where we go next with research, education, and things like that. But initially, that would be an example of something that was probably a charge [from administration or policy]. – Zoe (ANR, State 2)

Move from Engaged to Expert

I don't know that it's the right model, but for my personality, I probably use the expert model within our county programming. There are times when programs that we do are initiated through an engaged model. But when we've done those and I've met with people and they've initiated them, it seems like it shifts to an expert model as we developed the program, and those others that are involved kind of step back from the process. And that probably comes from — I don't want to say I'm a control freak but I am a control person, and I want to make sure that things are done right. So, I probably, in a team or group approach, am that person that says, "Okay, I'll just do it to make sure we get it done." – Sam (ANR, State 2)

Personal Preference or Attributes of the Professional

Get something done quickly

And I think a lot of times we're in that get 'er done mode, where it's like we just need to do it, and move on. So, I think that, for me, would probably — would be a barrier [to being more engaged]. It's just like — it's things like upfront, you're not thinking about the benefits on the backside, some days. You're just like, "Okay, this is what we're doing. We're going to do it and be done." So, that's my thought on that one. – Pat Bean (4-H, State 1)

Manage Time

Yeah, when I get overwhelmed then I have a tendency to just say, "This is what we're doing and this is when we're doing it." When you look at your calendar — ... I don't mind when I get double-booked. I can manage double-booked, but when you're triple-booked for a slot of time, then that's when you start freaking out, and start sliding back and say, "Enough of the Doodle polls. We can discuss when we're going to meet a gazillion times. We're just going to meet on Tuesday at 10:00." And you have a tendency to slide back into that expert — "This is what we're going to do because it's what I can handle." – Suzie (4-H, State 1)

Stay on Topic

Well again, probably just because it's the easiest, it's the easiest thing to put together. You can put together a PowerPoint presentation with the assumption that you have a pretty good handle on what it is people need to learn about a given topic and you can hit the highlights, hit the important points well. Whereas if you do an engaged model, depending on how you implement that engaged model, sometimes discussion may go off topic of what you would consider to be the most important issues that need to be addressed. You know, with the expert model, you can control that a little bit more because you've got the flow, you've got the outline for how the information is going to be presented. – Olive (ANR, State 1)

Visit our website: www.ext.vt.edu

Produced by Virginia Cooperative Extension, Virginia Tech, 02-24

Virginia Cooperative Extension is a partnership of Virginia Tech, Virginia State University, the U.S. Department of Agriculture, and local governments. Its programs and employment are open to all, regardless of age, color, disability, sex (including pregnancy), gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, military status, or any other basis protected by law.

VT/0124/ALCE-319P