

**U of A** **DIVISION OF AGRICULTURE**  
**RESEARCH & EXTENSION**  
 University of Arkansas System

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## Introduction

There is no blueprint or recipe for conducting a good evaluation. Because the term *evaluation* is subject to different interpretations, a program can be evaluated in a variety of ways. Many Extension professionals evaluate their programs informally on an ongoing basis through casual feedback and observation. The resulting information is often very useful and may be all that is needed to keep a program relevant and operating efficiently. You can enhance the value of information garnered from an evaluation however, if you devote sufficient forethought and planning to the evaluation process. As the term is used in this guide, *program evaluation* refers to the thoughtful process of focusing on questions and topics of concern, collecting appropriate information, and then analyzing and interpreting the information for a specific use and purpose.

This guide is designed to help you plan a program evaluation. It is organized into four major sections:

- Focusing the evaluation
- Collecting the information
- Using the information
- Managing the evaluation

Each section presents a series of questions and considerations for you to adapt to your own needs and situation.

You'll discover that evaluation is more than just collecting information. It involves serious reflection on questions such as:

- What is the purpose of the evaluation?
- What do I want to know?
- What do I intend to do with the information?

Answers to these questions are crucial if your evaluation is to produce useful information. This guide will help you think about and answer these and other questions as you plan a program evaluation.

## Focusing the evaluation

### What are you going to evaluate?

**D**efine what you intend to evaluate. This may or may not be easy depending upon how clearly defined your program is. For example, you might wish to evaluate a financial management program. Think about the program's purpose and content. Do you want to examine the whole program or just a particular component of it? Briefly describe what you want to evaluate—purpose, expected outcomes, intended beneficiaries and activities. What is the planned link between Extension's inputs and the desired outcomes?

The evaluation effort should fit the programming effort. In some cases, you may only be interested in finding out how people responded to your teaching style, or how satisfied they were with a particular event. In other cases, you may want to document behavioral changes or impacts which require a more comprehensive evaluation and level of effort. The point is to tailor your evaluation to fit the program. Don't expect to measure impact from a single workshop or behavioral changes from a limited media effort.

Remember, not all extension work needs to be formally evaluated. Formal evaluations require time, money and resources. Sometimes programs lack sufficient substance to warrant a formal evaluation, or it may be too costly to collect the evidence needed to demonstrate impact. It may be possible that no one is interested in the findings.

We also need to consider our clientele. People get tired of filling out end-of-session forms or answering surveys. Be selective, considerate and think about what is needed and what will be used.

## What is the purpose of the evaluation?

**T**he fundamental purpose of evaluation is to create greater understanding. Within Extension, program evaluations are conducted largely to improve educational efforts and to address accountability. In action, these purposes translate into more specific reasons for conducting an evaluation.

What is the purpose(s) of the evaluation you propose? For example, will it:

- Help others (taxpayers, administrators, participants, colleagues, committee members) understand the program and its results?
- Improve the program?
- Improve your teaching?
- Measure whether the Extension program made a difference in people's lives?
- Determine if the program is worth the cost?
- Answer questions posed by funders and influential members of the community?
- Meet rank and tenure requirements?
- Meet administrative requirements?
- Other?

It is important to clearly articulate the evaluation's purpose. Otherwise, it will lack direction and the resulting information will not be as valuable as it could be.

## Who will use the evaluation? How will they use it?

**H**ave you ever completed an evaluation and asked, "What shall I do with it?" Or tallied the results but never really used the findings? If we want to collect relevant data and make the best use of limited resources, we must think about how we'll use our evaluation right from the start.

Sometimes, we conduct an evaluation only for our own use. Usually, however, there are others who have requested or could use the resulting information. Any of the groups listed below might be interested in the evaluation results of an Extension program.

- People affected in some way by the program (either directly or indirectly) such as program participants, nonparticipants, critics
- County board members, elected officials
- Community leaders
- Colleagues, volunteers, collaborators, supporters
- Extension administrators
- Media
- Tenure committees
- Grantors
- Agencies, firms, interest groups

Identify potential users of the information. Find out *what* they want to know, and *how* they will use the information (see table 1). If you don't know, ask. This will help you to clarify the purpose(s) of the evaluation, build commitment for it and fine-tune the particular questions the evaluation will address.

**Table 1.** Who wants to know **what?** How will the information be used?

Who might use the evaluation*	What do they want to know?	How will they use the results?
You	Is the program meeting clientele needs?	To make decisions about modifying the program
	Is my teaching effective?	To influence decisions about tenure <i>or</i> merit
County board	Who does the program serve? Is the program cost-effective?	To make decisions about budget allocations
Professional review committee	Are you an effective educator?	To make rank and promotion decisions
Extension administration	Has the program achieved its expected outcomes?	To justify extension programs and ensure financial support
	How effective are the extension faculty?	To decide about staff training and achievements
Clientele	Is the extension program meeting their needs?	To determine whether to participate in other extension programs

\*Examples of broad user categories are listed here. Be as specific as possible when you identify potential users and their interests.

### **Involving others**

As with program planning, involving intended users of the information in an evaluation leads to greater commitment to the evaluation process, helps ensure that relevant questions are asked, and increases the chances that findings are listened to and used.

User input may be included throughout the entire evaluation process or just at specific stages, such as when you set the evaluation's focus, determine the information needs, or collect and interpret data. In recent years, considerable emphasis has been placed on involving stakeholders as partners in the evaluation process to ensure that the information collected is relevant and that there is a commitment to use it.

Often, however, when we include users, it is as "helpers" or "data collectors," while we remain in control of the evaluation. Alternative approaches in the field of evaluation aim to change the center of control. *Participatory approaches* and *empowerment evaluation* enable people to conduct and use their *own* evaluations.

An appropriately constituted advisory group or a co-sponsor can be a strong asset. These parties can serve as advocates for the evaluation, see that tasks are completed and help make resources available. As a result, more people respond, the findings receive more attention, and the results are disseminated more widely.

## What questions will the evaluation seek to answer?

**M**ake a list of the questions and topics that you and the individuals or groups you have listed want to address. As you do so, review the program's elements. Sometimes programs change as they are implemented; sometimes not all the intended activities are

carried out. Defining appropriate questions to be answered by an evaluation depends upon your knowledge of the program.

The following table lists some typical questions raised in Extension circles.

**Table 2.** Questions raised about extension programs

<p><b>About outcomes/impacts</b></p> <ul style="list-style-type: none"> <li>■ What do people do differently as a result of the program?</li> <li>■ Who benefits and how?</li> <li>■ Are participants satisfied with what they gain from the program?</li> <li>■ Are the program's accomplishments worth the resources invested?</li> <li>■ What do people learn, gain, accomplish?</li> <li>■ What are the social, economic, environmental impacts (positive and negative) on people, communities, the environment?</li> <li>■ What are the strengths and weaknesses of the program?</li> <li>■ Which activities contribute most? Least?</li> <li>■ What, if any, are unintended secondary or negative effects?</li> <li>■ How well does the program respond to the initiating need?</li> <li>■ How efficiently are clientele and agency resources being used?</li> </ul>	<ul style="list-style-type: none"> <li>■ What resources and inputs are invested?</li> <li>■ How many volunteers are involved and what roles do they play?</li> <li>■ Are the financial and staff resources adequate?</li> </ul>
<p><b>About program implementation</b></p> <ul style="list-style-type: none"> <li>■ What does the program consist of—activities, events?</li> <li>■ What delivery methods are used?</li> <li>■ Who actually carries out the program and how well do they do so?</li> <li>■ Who participates in which activities? Does everyone have equal access?</li> <li>■ What is Extension's role; the contributions of others?</li> </ul>	<p><b>About program context</b></p> <ul style="list-style-type: none"> <li>■ How well does the program fit in the local setting? With educational needs and learning styles of target audiences?</li> <li>■ What in the socio-economic-political environment inhibits or contributes to program success?</li> <li>■ What in the setting are givens and what can be changed?</li> <li>■ Who else works on similar concerns? Is there duplication?</li> <li>■ Who are cooperators and competitors?</li> </ul> <p><b>About program need</b></p> <ul style="list-style-type: none"> <li>■ What needs are appropriately addressed through Extension education?</li> <li>■ What are the characteristics of the target population?</li> <li>■ What assets in the local context and among target groups can be built upon?</li> <li>■ What are current practices?</li> <li>■ What changes do people see as possible or important?</li> <li>■ Is a pilot effort appropriate?</li> </ul>

As you think about the questions you want answered, it may help to review the Bennett hierarchy (see table 3). First used in the 1970s, it continues to be updated and used in Extension for planning and evaluation. The three lowest levels concern program implementation while the four upper levels deal with program results. The logic of the hierarchy is that in Extension programs we expend:

1. *resources* to conduct
2. *activities* intended to obtain
3. *participation* among targeted audiences.
4. Participants' *reactions* to program activities affect their
5. *learning*—knowledge, opinions, skills and aspirations. Through learning, people take
6. *action* which helps achieve
7. *impact*—social, economic, environmental change.

#### **Tips**

- Evidence of outcomes is stronger as you go up the hierarchy.
- Difficulty and cost of obtaining evidence increases as you go up the hierarchy.
- Evaluations are strengthened by showing evidence at several levels of the hierarchy.
- Information from the lower levels helps to explain results at the upper levels which are longer-term.

Admittedly, the Bennett hierarchy is a simplified representation of programs and does not indicate the role that larger social, economic and political environments play in extension program delivery. But using this hierarchy can help to describe a program's logic and expected links from inputs to end results. It can be useful in deciding what evidence to use and when. For example, a program may show evidence of accomplishments at the first five levels long before practices are changed, actions are taken or long-term community improvements are made.

**Table 3.** Bennett's hierarchy of evidence for extension program evaluation

- 7. Impact**—Social, economic, environmental conditions intended as end results, impacts or benefits of programs; public and private benefits.
- 6. Actions**—Patterns of behavior and procedures, such as decisions taken, recommendations adopted, practices implemented, actions taken, technologies used, policies enacted.
- 5. Learning**—Knowledge (awareness, understanding, mental abilities); opinions (outlooks, perspectives, viewpoints); skills (verbal or physical abilities); aspirations (ambitions, hopes).
- 4. Reactions**—Degree of interest; feelings toward the program; positive or negative interest in topics addressed, acceptance of activity leaders, and attraction to educational methods of program activities.
- 3. Participation**—Number of people reached; characteristics / diversity of people; frequency and intensity of contact / participation.
- 2. Activities**—Events, educational methods used; subject matter taught; media work, promotional activities.
- 1. Resources**—Staff and volunteer time; salaries; resources used: equipment, travel.

Source: Bennett and Rockwell, 1995. *Targeting Outcomes of Programs (TOP)*; slightly modified.

Many Extension professionals are concerned with outcomes and with documenting evidence that their programs make a difference in peoples' lives. But understanding outcomes requires more than just documenting end results. When that happens, we are left with what has been called the "black box" approach to evaluation—we record outcomes but we don't know what led to them. For example, using a pre-test and post-test demonstrates that something happened (we hope)—not how or why or the role that Extension played. What were the activities? What contribution did Extension make? What factors in the socio-economic context or implementation process influenced the outcomes? Identify those parts that need to be explored relative to your program and situation. At the minimum, documenting Extension's role and resource investments is critical to most evaluations.

Extension plans programs to have certain positive outcomes. However, unanticipated events may occur that result in positive, negative or neutral outcomes. For example, a program to develop a recreational center for youth may result in an increase in street litter and noise; or, an economic development program may result in new investors coming to town who displace local businesses. Or, there may be unexpected positive benefits which are as impressive or more impressive than the planned outcomes. Think about what some *other* effects of your program might be. Create an evaluation that will stay tuned to unexpected results.

### **Clarifying the evaluation question(s)**

As you think about the questions that your evaluation will answer, it may be necessary to break a larger question into its component parts. This will help you fully answer the broader question and begin to identify the information you need to collect. Consider the following examples:

**Main question:** Who benefits from the program?

**Sub-questions:** Who actually participates in the program? At what level of involvement?

Who else gains from the program? What do they gain?

How do program participants compare to the county population in general?

Who may be negatively affected? How?

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**Main question:** Is the program duplicating other efforts?

**Sub-questions:** Of what does the program consist?

What other similar programs exist—of what do they consist?

How are aspects of these programs alike? Dissimilar? Complementary?

What is our particular expertise/niche?

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**Main question:** Did people learn the importance of X?

**Sub-questions:** Did people know anything about X before attending the program?

Was the environment conducive to learning?

Do any other programs or agencies promote the importance of X?



It will probably be necessary to prioritize the evaluation questions. Try to distinguish between what you need to know and what might be merely nice to know. Focus on the key questions that are most important. When prioritizing, consider time, resources and the availability of needed assistance compared to the value of the information that might be collected. As needed, bring stakeholders together and negotiate a practical list. Above all, keep the evaluation manageable. It is better to stay focused and answer a few questions well.

### **Define key terms**

You may need to define certain terms. For example, “impact”—what does it mean? In terms of what? On whom? You may define impact from your perspective—what you wanted to have happen (look back at your desired outcomes). But also, check in terms of what the participants themselves see as the impact. Our definitions and program participant definitions are not necessarily the same.

**Case example.** Program staff defined and evaluated their outcome of a bilingual nutrition education program as *knowledge gained* (nutrition knowledge gained, proficiency in language). An evaluation showed little, if any, gains in knowledge.

Upon further probing, it was found that the participants were very satisfied with the program. For them, it had been very successful because, at its conclusion they were able to shop with greater confidence and ease, saving time. Staff-defined definitions of outcomes missed some important benefits as perceived by the participants.

## **What information do you need to answer the questions?**

Once you’ve identified the key questions, you (and those you are involving in the evaluation) can begin the creative task of figuring out how to answer those questions. Not all pertinent information can be specified in advance, but much can and should be.

### **Indicators**

An *indicator* expresses that which you wish to know or see. It answers the question, “How will I know it?” It is the indication or observable evidence of accomplishments, changes made, or progress achieved. Indicators are the measurements that answer your evaluation questions. Some examples are provided in table 4.

As we know, *leadership* is a complex phenomenon that can be displayed in many ways. Ask yourself (and others)—what does leadership mean? How would I recognize it if I saw it? If our evaluation seeks to document the impact our program has on developing leadership skills, we first must identify those actions which *indicate* that a person is demonstrating improved leadership. If our evaluation purpose is to determine the impact a youth development program has on developing capable youth, we first must define what we mean by *capable youth* and list the characteristics that identify them. These are the indicators you should use to measure the outcome.

Often, a number of indicators are needed to express an outcome more accurately. You will need to clearly define indicators that are appropriate to your program or use those developed and tested elsewhere. In ideal practice, indicators are written during program planning. An example showing indicators for different levels of an extension program is found in Appendix A.

**Table 4.** Examples of indicators

Evaluation question	How I will know it? The indicators
Has the expected change in leadership capabilities occurred?	<ul style="list-style-type: none"> <li>• Ability to negotiate when group disagrees</li> <li>• Improved listening skills</li> <li>• Ability to maintain balance between process and task activities</li> <li>• Anything else?</li> </ul>
Is water quality improving?	<ul style="list-style-type: none"> <li>• Less pollution as a result of improved nutrient management</li> <li>• Balanced species composition in lakes</li> <li>• Anything else?</li> </ul>
Are young people learning to communicate effectively?	<ul style="list-style-type: none"> <li>• Increased confidence in expressing ideas clearly</li> <li>• Improved verbal and non-verbal communication skills</li> <li>• Improved listening skills</li> <li>• Anything else?</li> </ul>
Was the collaboration successful?	<ul style="list-style-type: none"> <li>• Actions taken as a result of the collaboration</li> <li>• Membership from each segment of the community affected</li> <li>• Roles, rights and responsibilities clearly delineated</li> <li>• Communication is open and frequent</li> <li>• Anything else?</li> </ul>

Remember, a program outcome may mean different things to different people. Therefore, the expression of that outcome may be different. For example, volunteers and youth who experience violence in their daily lives are likely to characterize *capable* differently than a rural 4-H club member. Hmong or Native Americans may designate different attributes for *leadership* than participants of Hispanic or European origin. Wherever possible, try to understand the meaning of the program and its outcomes from the participants' perspectives. Include those meanings as the indicators for measuring success.

Also, remember that when you collaborate with other agencies, they may use different indicators. The Department of Natural Resources, for example, might measure *water quality* in terms of bio-physical characteristics, the local Economic Development Group may measure *healthy community* in terms of number of jobs per capita, and the Feed Producer's Association may measure *agricultural profitability* as cost/return ratios.

### **Kinds of information: numerical and narrative**

Numerical and narrative data both serve a useful purpose in evaluation. The choice for using one or both types of information depends upon what you want to know about the program and who will receive the information. Ultimately, the value of the information depends upon how it is viewed by your audience. Most evaluations include a mix of numerical and narrative information. The exact mix depends upon the preferences and backgrounds of the people to whom you will communicate.

Think about what type of data is most likely to be *understood* and viewed as *credible* by those who will receive the evaluation.

- Will your evaluation audience be impressed with numbers and statistics?
- Will your evaluation audience be impressed with human interest stories and examples of real situations?
- Will a combination of numbers and narrative information be valuable?

### **When is the evaluation needed?**

#### **Deadlines**

When the information is needed and what you can manage to do within the timeline will influence the scope of your evaluation. You might decide to save some questions or concerns for another study, or to discard others as unnecessary or inconsequential. Try to develop a realistic timeline for completing the evaluation. Keep the components of your plan manageable so they can be handled well within those time limits.

#### **Usable moments**

You may not need evaluation information to meet a specific deadline, but there might be times when having such information would serve a valuable purpose. A few examples of such “usable moments” include important committee meetings, testimony in front of funders, pre-budget hearings, etc.

### **What resources do you need—time, money, people?**

**T**he resources you have available may influence your evaluation plan more than any other single factor. Even if you expect to integrate evaluation into the program or if the evaluation will be conducted by volunteers or the participants themselves, you will need to allocate time for planning. Balancing your expectations (and those of others) with what is realistic and manageable is a challenge. You’ll need to consider:

- **Time.** Whose time and how much of it is available to work on evaluation? What priority will evaluation have in your overall workload? Involving volunteers or participants is a way to spread the workload, but it may require time for preparation or training.
- **Money.** Some activities require financing. For example, what dollar resources are available to print questionnaires, pay for postage, reimburse participants, analyze the data?
- **Expertise.** Sometimes we need outside expertise to help with certain parts of an evaluation. Constructing the instrument or analyzing the data may require such help. Or, there may be others with a lot of experience and knowledge related to the program from whom we could learn. Sometimes the involvement of an “outsider” increases the evaluation’s credibility.

## Collecting the information

Go back and review the questions you wish to ask and the information needed to answer them. Now is the time to think about how you will collect the information.

### What sources of information will you use?

#### **Existing information**

Remember, you don't always have to go out and collect new data. Explore possible sources of existing information such as other agency records, previous evaluation reports, local service and business reports, WISPOP, the Census Bureau, etc. Printed material about the program (newspaper articles, annual reports and updates, participant logs and records) may be a valuable source of information.

#### **People**

The most common source of information is the program's participants and beneficiaries themselves. However, a range of potential "human" sources exist including nonparticipants, proponents and critics; key informants (school principals, court judges, parents of participants, volunteer leaders, etc.—individuals who are likely to know something about the programs and their effects); program staff and collaborators; legislators; funders; and policy makers.

Be sure that the people you identify can actually provide the information you are seeking.

#### **Observations**

An underused, but powerful, source of information is the direct observation of program events, activities and results.

#### **Pictorial records**

Another powerful source of information is any pictorial record that shows program activities and effects documented in photos, charts, videotapes, and maps.

### What data collection method(s) will you use?

#### **Method**

When you think about the type of method to use for collecting the information, consider:

- Which method is most likely to secure the information?
- Which method is most appropriate given the values, understandings and capabilities of those who are being asked to provide the information?
- Which method is least disruptive to your program and to your clientele? Asking questions can be intrusive, time-consuming and/or anxiety-provoking.
- Which method can you afford and handle well?

The *best way* to collect data often depends upon an understanding of the social, cultural and political environment.

- Some participants may not feel comfortable responding over the telephone or in a written format. You will need cultural sensitivity to link an appropriate data collection technique with diverse respondents.
- If, in the past, only 20% responded to your mail survey, you will need to decide whether that is an adequate representation. Can you get more useful information from another method?

In Extension, we've tended to rely on surveys, tests and end-of-session questionnaires.

Currently, focus group interviews are gaining popularity. Altogether there are a variety of techniques from which to choose (see table 5). Select the method which suits your purpose—don't let the method determine your approach. Be creative and experiment with various techniques.

**Table 5.** Common types of data collection methods used in evaluations of extension programs

<b>Survey</b>
<b>Interview</b>
<b>Test</b>
<b>Observation</b>
<b>Group techniques</b>
<b>Case study</b>
<b>Photograph, videotape, slides</b>
<b>Document review and analysis</b>
<b>Portfolio review</b>
<b>Testimonials</b>
<b>Expert or peer review</b>
<b>Simulated problem or situation</b>
<b>Journal, log, diary</b>
<b>Unobtrusive measures</b>

**Multiple data collection methods.** Using two or more methods provides a more thorough account and cross-validates your findings. This may not be necessary if the evaluation's purpose is narrow, you have few resources or you expect limited use of your findings.

### **Instrumentation**

In most evaluations, there is some sort of form or device for compiling information such as a recording sheet, a questionnaire, a video or audio tape. Think about the method you have chosen and decide what is needed to record the information. If a questionnaire or recording sheet is used, check to ensure that it

- will secure the information you want;
- will be understood by the respondent and the recorder;
- will be simple and easy to follow;
- will be culturally sensitive.

Conduct a pilot test of the questionnaire or recording form with people similar to your proposed respondents or recorders. Avoid the temptation to only use office colleagues to pre-test evaluation instruments and forms. They may understand what you intended when respondents will not. Pilot the instrument and then discuss with the pilot respondents any uncertainties they might have had. This provides a chance to eliminate potential problems.

## **What collection procedures will you use?**

### **When will the data be collected?**

- Before and after the program. *Examples:* pre- and post-measures.
- At one time. *Examples:* a single survey; an end-of-program assessment; a group debate.
- At various times during the course of the program. *Examples:* a panel survey; a mix of methods implemented at various times; at three and six months.
- Continuously throughout the program. *Example:* logs kept by youth throughout a weekend camping experience.
- Over time. *Example:* a longitudinal survey that documents practices over several years.

### **Will a sample be used?**

Whether to sample or not depends upon the purpose of the evaluation, the size of the population, and the method used. For example, it may be possible to administer a post-test to all 100 participants in a workshop to ascertain their level of learning and satisfaction. But, if you want interview data from these same participants, you may not be able to interview all 100. And, if you want to generalize to the whole group, you will need a **probability sample**. Sampling also depends upon the number of people in your program. If your program is a focused effort working with 20 at-risk teenagers, you will probably want to include all 20 in your evaluation.

We tend to think of sampling in terms of people. One can also take a sample of documents, program sites or locations. For example, rather than collecting information from all the county 4-H clubs, you may wish to focus your resources and take a random sample of clubs. Or, you may want to stratify your sample by age, club activity, or location. To do so will require particular attention to your sample size and selection. In other cases, you may wish to learn about select groups without needing to generalize to all the groups. Then, a **nonprobability sample** is appropriate.

Consider the kind of sample and size that will be most credible to those you want to pay attention to the findings.

**Note:** Some professional evaluators argue that it is better to sample and use several data collection techniques in an evaluation than to expend all your resources on collecting data from the entire population using a single instrument. Also, political concerns may need to be considered. For example, political officials or legislators may only see the evaluation as credible if it includes their district or a large number of respondents.

### **Who will collect the data?**

You may be the only one collecting information, but more and more frequently, others are also involved in evaluation—particularly in data collection. Training or support may be needed to help them do their job.

### **What is the schedule for data collection?**

- When will the information be available?
- When can the information be conveniently collected? When will it be least disruptive?
- Where will the information collection take place?
- When will data collection start and end?

**Consider your respondents.** Convenient times and places are likely to differ depending upon whether your respondents are farmers, business owners, men, women, single parents, school teachers, or some other group. Likewise, there may be culturally appropriate meeting times and locations.

A sample worksheet in Appendix B covers the “information” aspects of planning an evaluation.



## **Using the information**

Evaluation involves more than just collecting information. The information must be organized and presented in a way that permits people to understand it.

### **How will the data be analyzed?**

**O**rganizing, tabulating and analyzing your data to permit meaningful interpretation takes time and effort—often, more time and effort than you’d expect. Factor this in when you design your evaluation. If resources are limited, you may want to structure your evaluation to be smaller, rather than larger.

The aim of data analysis is to synthesize information to make sense out of it. Different techniques are appropriate depending upon whether you have qualitative (narrative, natural language) or quantitative data (numerical data).

Consider such questions as:

- How will responses be organized / tabulated? By hand? By computer?
- Do you need separate tabulations from different locations or groups?
- What, if any, statistical techniques will be used?
- How will narrative data be analyzed?
- Who will organize and analyze the information?

### **How will the information be interpreted—by whom?**

Interpretation is the process of attaching meaning to the analyzed data. Too often we analyze data but fail to take the next step to put the results in context and draw conclusions. For example, what does it mean that 45% of the respondents reported having their wells tested? Is this greater or less than last year? Is this number high or a low for X county? What does it mean in terms of health and safety? What, if anything, should be done next?

Numbers do not speak for themselves. They need to be interpreted based on careful and fair judgements. Similarly, narrative statements need interpretation.

### **Who should be involved in interpreting the results of the data analysis?**

The same information can be interpreted in various ways. As the program director, you may have your own perspective. Others will look at the data through different eyes. Greater understanding usually results when we involve others or take time to hear how different people interpret the same information. One way to do that is through meetings with small groups to discuss the data. Think about including program participants when discussing the meaning of the information.

### **What is the base for interpreting the data?**

Consider how you will make sense of the results. To what will the information be compared: findings from other evaluations? Baseline data? Initiating evidence of need? Pre-defined standards of expected performance—"what should be"?

### **Who sets the basis for comparison?**

- Expert/professional judgements
- Program personnel judgements
- Participants' judgements
- Existing research; experience from similar programs
- Your own personal judgement

### **What are the conclusions and recommendations?**

Summarize the three to five main points that you feel are most important from the evaluation—the points you really want to remember and have other people remember. As appropriate, provide recommendations that you feel follow from these findings.

### **What did we learn? What will we do differently?**

If we agree that the underlying purpose of any evaluation is to promote understanding and learning about extension programs, then the ultimate result is to articulate what we learned—about the program, about our professional competencies, about the process of the evaluation. What will we do as a result of these insights? Often, it is useful to lay out an *action plan*. When conducting the evaluation in collaboration with others—such as a community group, a farmers' association or a 4-H club—developing an action plan helps ensure the results are used.

### **How will the evaluation be communicated and shared?**

#### **To whom?**

Look back at who was identified early on as a key user. Target key decision makers with appropriate and hard-hitting information. Share with your colleagues who may need to conduct a similar evaluation. Is there anyone else who might, or should be, interested in the evaluation results?

Remember to communicate your findings to the respondents who participated in your evaluation. Not only is this courteous, but it helps to ensure their cooperation in future work.

#### **How?**

You have expended time and resources in conducting your evaluation. Now, you need to maximize your investment in the project. Think about other ways you might get some mileage from your effort. Remember that citing a finding or two in informal conversations may have more influence than a formal report.

Communication methods you use will depend upon your audience. A variety of possibilities exist, such as:

- A written report
- Short summary statements
- Film or videotape
- Pictures, photo essays, wall charts, bulletin boards, displays
- Slide-tape presentations
- Graphs and visuals
- Media releases
- Internet postings

Invite your audiences to suggest ways they'd like to receive the information; for example, dates when it would be most valuable; useful formats; effective displays or graphs; other recommendations that would maximize its use.

## Managing the evaluation

### Implementing the plan: timeline and responsibilities

There are various ways to lay out responsibilities and a timeline for managing an evaluation. Construct your own or see the examples in Appendices C and D. You may wish to post the chart in Appendix C in an obvious location where all involved can see it.

### Budget

If necessary, establish a budget to cover costs such as printing or duplicating (data collection instrument, reports), communications (postage, telephone calls), incentives or rewards to respondents, providing a meal or other reimbursement for group participants, making or editing a videotape, travel and *per diem* costs, data processing, or consultants' fees.

### Finalizing the plan

- Assess the feasibility of carrying out your plan.
- Do you foresee any barriers or obstacles?
- Refine and revise as necessary.

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## Appendix A

Example showing indicators for different levels in an extension program.

<b>Program level</b>	<b>Expected achievements</b>	<b>Indicators</b>
<b>7. Impact</b>	Town makes development decision based on good planning techniques.	Need for zoning clarified. Town adopts comprehensive plan. Effective moratorium on condos. Citizen satisfaction.
<b>6. Actions</b>	Individuals use skills or knowledge; board works better with other town departments; new relationships are formed.	Planning board creates and proposes comprehensive plan, functions as a cohesive unit, schedules sessions with decision makers; new working relationships evolve.
<b>5. Learning</b>	Acquire sufficient knowledge about planning and skills with group process. Develop positive attitudes about planning. Choose to act.	Community planning techniques learned. Group functioning understood. Process noted informally among members and Extension staff.
<b>4. Reactions</b>	Group members maintain level of interest and accept leadership responsibilities. Extension staff role is appropriate.	Progress is made, deadlines kept. Board takes initiative in planning process. Group is satisfied with progress and Extension's role.
<b>3. Participation</b>	Appropriate people are involved as members and as technical resources.	Broad-based representation; each member accepts part of the work; appropriate resource people (technical and key community leaders) take part.
<b>2. Activities</b>	Needs assessment; facilitate prioritization process; four meetings.	Needs assessment completed. Problems defined and written. Objectives and priorities set.
<b>1. Inputs</b>	Volunteer / citizen participation; 100 hours Extension time; specialist input.	Public or official support and sanctions; agreement (contract) made between group and Extension staff; group membership established; contract formed if necessary.

## Appendix B

Evaluation questions	Information required	Information source	Method for collecting information

Sample worksheet developed by Rockswold, 1993, Module 8.3 based on worksheet for summarizing an evaluation plan from Worthen & Sanders, 1987 (p.244)

## Appendix B, *continued*

Information collection arrangements				Reporting of information		
By whom	Conditions	When	Analysis procedures	Interpretation procedures and criteria	To whom	How

## Appendix C, Evaluation schedule and input requirements

Activity/Task	Person responsible	<div>Dates</div> <div>Start      Finish</div>	Inputs needed to accomplish task

## Appendix D

### The Gantt Chart

**Gantt Chart** is a simple display that includes proportionate, chronologically scaled time-frames for each evaluation task. The chart provides an overview of the entire evaluation process that illustrates when evaluation activities will begin and how long each will continue.

**Vertical axis** lists the tasks to be completed.

**Horizontal axis** shows a time scale.

A **horizontal line** is drawn for each task to show how long it will take.

**Milestones** (important interim deadlines) are keyed with symbols.

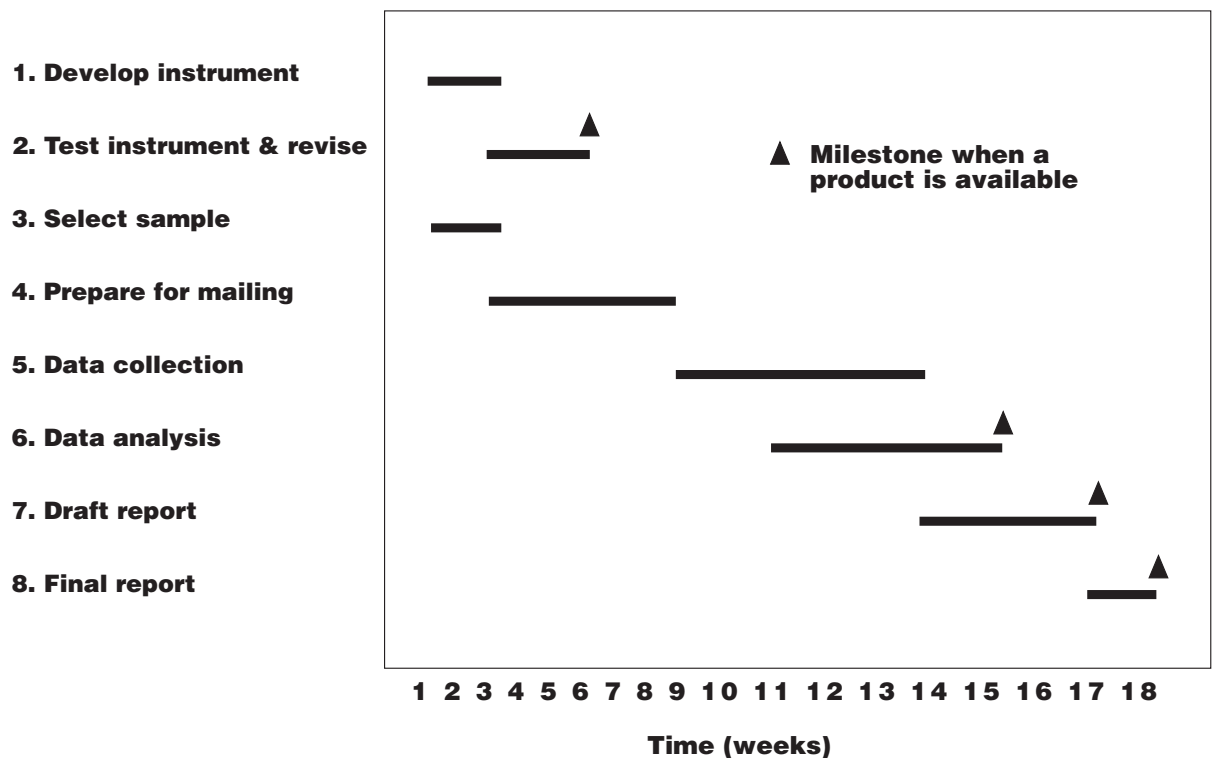
### Uses

1. Communicates evaluation plan to a non-technical audience; therefore it is useful in proposals or reports.
2. Helps in time management since it forces one to examine the length of time each project task will require, to contemplate the overlap between tasks, and to establish a realistic timeframe for the entire project.

A Gantt chart reflects the evaluator's planning. Although it is easy to prepare, it is useful only when all evaluation steps are accounted for within realistic time frames. One must allow sufficient time for each step in the evaluation process—starting from focusing the evaluation through the final report.

**Source:** Rockwell, 1993. Module 8.9  
based on Worthen and Sanders,  
1987, pp. 256-257.

**Figure 1.** Example of a Gantt Chart



Material adapted from *PLANNING A PROGRAM EVALUATION* (G3658-1), Ellen Taylor-Powell.  
University of Wisconsin-Extension, Cooperative Extension, Madison, WI, 1996.

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