
service in ACTION

Program evaluation methods and techniques

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Quick Facts

Data collection choices depend on personnel, time and money resources available, accuracy desired, and evaluator expertise.

Program evaluation can provide decision-makers with evidence of program value and data on which to base program decisions.

Some methods of program evaluation include questionnaires, checklists, group discussions, case studies, existing records, interviews, observations, unobtrusive measures, knowledge tests, personality inventories and testimonials.

- * money available for data gathering, analysis and reporting.
Program evaluation can help you:
- * measure clientele use of recommended practices;
- * provide evidence of the value of Cooperative Extension programs to commissioners, legislators and other decision-makers;
- * determine and document program results and accomplishments;
- * provide administrators with data to make program decisions such as restructuring, strengthening or dropping programs;
- * develop your own skills and confidence in evaluation;
- * feel good about what you accomplish;

Program evaluation is a term familiar to Cooperative Extension workers at all levels, especially during tight budget times. This fact sheet assumes that the reader has some knowledge of planning, conducting and using an evaluation. It focuses on methods for data collection.

Your choice of tools for data collection in evaluation studies usually depends on:

- * facilities and resource personnel available to conduct data collection and analysis;
- * extent of accuracy or level of impact desired;
- * expertise of the evaluator,
- * time span for the evaluation study; and

This information provided by:

1. Former Colorado State University Cooperative Extension program evaluation specialist. 8/93. ©Colorado State University Cooperative Extension. 1994. For more information, contact your county Cooperative Extension office.

- * establish benchmarks upon which future evaluations can be based;
- * determine cost of programs per unit of staff input;
- * gain audience data that can be used in targeting audiences for future programs.
- * other ideas you have:
- * _____

To help you decide which data methods to use, advantages and disadvantages of some common tools are listed. Remember, sample sizes larger than 30 and less than 500 are appropriate for most evaluation studies. You may want to add your own advantages and disadvantages to the ones listed.

Questionnaires

Advantages

- * Most useful when large numbers of people are to be reached in differing geographical regions.
- * Easily coded.
- * Can be replicated.
- * Easily adapted to sampling techniques.
- * Pilot testing can clear up misunderstood questions and save you from coding headaches.
- * Cover letter can set nature and tone of the evaluation.
- * Can be administered personally or by mail.
- * The form and types of questions can be geared to minimize respondent biases.
- * Collected data can be anonymous, which encourages honest, candid answers.
- * Requires less time than interviews.
- * Can easily be organized in logical order.
- * Can be made attractive and easy to read.

Disadvantages

- * Questions about the instrument cannot be clarified in a mail questionnaire.
- * Neutral phrasing of items is difficult to achieve especially with controversial questions.
- * Mail questionnaire return is sometimes very low.
- * Requires illustrations or pictures so audiences with low-literacy levels can understand.
- * Valid generalizations cannot be made unless high rate of return is obtained.
- * Response rate is low unless persistent follow-up is done (i.e. post cards, phone call reminders).

- * Respondents may leave some questions blank giving incomplete data.
- * May hear from people who represent "extreme" opinions.

Rating Scales and Checklists

Advantages

- * Useful in behavioral evaluations.
- * Allows for individual expressions.
- * Can be used in group settings.
- * Can easily be revised.
- * Data can be used for program improvement.

Disadvantages

- * Variances may occur in responses based on personal values.
- * Difficult to use in measuring attitudes.
- * Difficult to use in measuring achievements.
- * Descriptions of what is rated may be vague.

Focus Group Assessment

Advantages

- * Allows in-depth consideration of a subject.
- * Relatively efficient in terms of costs and time use.
- * Can be incorporated into an ongoing group or meeting.
- * Generally open-ended questions work well.

Disadvantages

- * Those people not in the group(s) have no input.
- * Hard to implement in a large group.
- * Minority opinions may not be expressed in the group.
- * May have biased results depending on the makeup of the group.

Case Studies

Advantages

- * Provide in-depth information.
- * Allow insights into casual relationships and personal feelings.
- * Unique opportunities to study small group or entire organization.
- * Can easily be tailored to fit special situations.

Disadvantages

- * Not complete and may best be used as background and a guide for further study.
- * Can be subjective.
- * Evaluation may be tempted to describe more than facts.
- * Focus may need to be on a limited number of cases or groups.

Existing Records (Content Analysis)

Advantages

- * Data readily available to evaluator.
- * May be accessed on a continuing basis.
- * Minimal cost and effort to the evaluator.
- * Can be a credible source of information.

Disadvantages

- * Usually only descriptive data.
- * May be gaps in the data or records available.
- * Do not usually discover the motivations, beliefs, etc., of the people involved.

Interviews

Advantages

- * Adaptable to variety of programs.
- * Suited to in-depth exploration of an issue.
- * If respondent gives vague answer, question can be repeated in simpler fashion.
- * May be taped (if interviewees don't object).
- * Evaluator can watch for non-verbal reactions.

Disadvantages

- * Interviewers must be trained.
- * Costly way to collect/analyze data.
- * May be difficult to find people at home.
- * Requires high degree of skill in planning and executing interviews.
- * Some responses subject to interpretation by interviewer.
- * May be biased in favor of people with telephones.
- * Responses may be biased if notes aren't recorded immediately.

Observations

Advantages

- * Setting can be natural, unstructured and flexible.
- * Nonparticipant observer can observe by sitting in a corner of the room and recording data without being involved.
- * Can be combined with other evaluation techniques and, thus, add to data quality.
- * Useful for studying small units.
- * Evaluators can develop their own set of observations and recording techniques.
- * Evaluators may watch for and record nonverbal behaviors.

Disadvantages

- * Time-consuming data collection.
- * Observer bias may be present including observer fatigue.
- * May need more than one observer.
- * Those observed may behave differently, especially in a short evaluation study.
- * Observations may not be valid for an entire population.
- * Not a realistic method for a large group.

Unobtrusive Measures

Advantages

- * Valuable in obtaining data about attitudes and behaviors.
- * Appropriate for group situations.
- * Avoids stimulation of people to work harder, which they tend to do if they know they are being observed.
- * Cost-effective method.

Disadvantages

- * May resemble "spying" and offend some people.
- * Often do not know the motivations behind behaviors or attitudes observed.

True/False or Knowledge Tests

Advantages

- * Can provide indications of levels of knowledge as base data.
- * Can be used as measure before and after a program or event.

- * Easy to implement.
- * Can be used to test one's accomplishment of learning objectives.
- * Can be replicated.

Disadvantages

- * Adults often resist being tested.
- * Knowledge may be totally unrelated to behaviors desired.
- * May only measure information gain and not knowledge gain.

Personality Inventories

Advantages

- * Evaluator often can use a standardized and validated measure.
- * Provides data that can be compared easily to other individuals and groups.

Disadvantages

- * Usually costs more because of purchasing test booklets and machine scoring.
- * People using the tools may not be adequately trained.

Testimonials or Anecdotes

Advantages

- * Easily understood by others in or outside the program.
- * Can be used as an illustration in evaluation reporting.
- * Can be an accurate assessment for those who describe the situation or behavior changes.
- * May lead to ideas for future programming.
- * Is now recognized as a helpful, useful tool for gathering program results data.

Disadvantages

- * People sometimes may say or write what they think you want to hear.
- * Cannot usually generalize beyond the person giving the testimony.
- * Sometimes difficult to sort out what happened as the result of your program vs. other influences on the person.

Presenting the Results

If you have chosen the proper method(s) for data collection and analyzed the information, you then need to finish by telling Cooperative Extension's story through the five Cs:

- * credible results
- * charismatically told
- * confidentially shared
- * clearly written
- * concisely reported

Additional Resources

Bennett, Claude. *Analyzing Impacts of Extension Programs*. Washington, D.C.: Cooperative Extension Service, U.S. Department of Agriculture. ESC 575, 1977.

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Warner, Paul and Richard Maurer. *Methods of Program Evaluation*. Lexington, Ky: Department of Sociology, Kentucky Cooperative Extension Service. University of Kentucky, Sept. 1984.