Ten Easy Steps to Program Impact Evaluation

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Introduction

Despite training efforts and materials developed for extension personnel on reporting impact of their programmatic efforts, the submitted reports often fall short of the true program impact assessment data.

Why?
Ten Easy Steps to Program Impact Evaluation

Why?
Introduction

However in an era of funding shortfalls and increased accountability, every extension educator must conduct and report such data.

... out of sight, out of mind, out of money...
Introduction

Meaningful program impact evaluation will:

- Provide tangible evidence of the importance and impact of the work you are doing
- Prove valuable for your job performance evaluation
- Be of interest to decision makers
- Be of interest to your clientele
- Be of interest to your professional peers
- Help maintain or gain financial support for Extension programming
What is a program?

Educational meeting
Twilight event
Workshop

Program =

- A planned, coordinated group of activities, procedures, etc., often for a specific purpose or outcome
  - Addresses a specific need, problem or situation
  - Shows what activities have taken place
  - Reports what measurable changes have occurred
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What is a program?

Identification of Problem or Need

Development of Objectives and Methodologies

Recognition

Identify and Document

Support

Conduct

Report Results (Scholarship)

Analyze Results - Evaluation and Impact Assessment

Conduct Extension Activities and/or Research

EXTENSION PROGRAM CYCLE

What is evaluation?

The act of ascertaining or fixing the value or worth of something
Ten Easy Steps to Program Impact Evaluation

Program logic model
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Program logic model

<table>
<thead>
<tr>
<th>Outcomes - Impact</th>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>What the short term results are</td>
<td>Learning</td>
<td>Awareness</td>
<td>Knowledge</td>
</tr>
<tr>
<td>What the medium term results are</td>
<td>Action</td>
<td>Behavior</td>
<td>Practice</td>
</tr>
<tr>
<td>What the ultimate impact(s) is</td>
<td>Conditions</td>
<td>Social</td>
<td>Economic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decision-making</td>
<td>Civic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Policies</td>
<td>Environmental</td>
</tr>
</tbody>
</table>
Introduction

A common sense approach and commitment to program evaluation is needed for successful impact assessment.
Step 1. Make the commitment
Step 2. Set up the appropriate mechanisms

- Support personnel
  - Project collaborators
  - Clerical staff
  - Volunteers

- Financial support
  - Office budget
  - Grants
  - Donation of products/services
Step 2. Set up the appropriate mechanisms

- Evaluative tools development
  - Educational event evaluations
  - Pre- and Post-tests
  - Follow up surveys
  - Evaluation cards

- Data management and reporting
  - Recordkeeping
  - Timelines and deadlines
  - Summarization of evaluations and surveys
  - Data analysis
  - Documentation
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Step 3. Define the objectives of the program

- What is the issue, problem or need you are addressing, and what do you want to accomplish?
- What do you want people to learn?
  - Short term outcomes/impacts
- What changes in behavior do you want to occur?
  - Medium term outcomes/impacts
- What changes in social, economic, environmental or civic conditions do you hope will occur?
  - Long term outcomes/impacts
Step 4. Alert clientele of your intentions

- Advisory groups
- Participants
- Supervisors
- Decision makers
Step 5. Determine how learning will be measured

KASA changes (knowledge, attitudes, skills, and aspirations)

- Short term outcomes/impacts
- Evaluated when the interaction occurs with the client
Step 5. Determine how learning will be measured

Pre- and Post-test

1. By drawing a line from column A to column B, match the type of pesticide with their function in column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biocides</td>
<td>Kill nematodes</td>
</tr>
<tr>
<td>Fungicides</td>
<td>Kill insects and other arthropods</td>
</tr>
<tr>
<td>Fumigants</td>
<td>Kill weeds</td>
</tr>
<tr>
<td>Herbicides</td>
<td>Kill slugs and snails</td>
</tr>
<tr>
<td>Microbials</td>
<td>Control algae in lakes, water tanks</td>
</tr>
<tr>
<td>Nematicides</td>
<td>Kill microorganisms</td>
</tr>
<tr>
<td></td>
<td>Microorganisms that kill, inhibit or compete with pests</td>
</tr>
<tr>
<td></td>
<td>Produce gas to kill pests in buildings or storage areas</td>
</tr>
<tr>
<td></td>
<td>Kill fungi</td>
</tr>
</tbody>
</table>

2. What is Integrated Pest Management (IPM)?

3. Which of the following substances are not classified as pesticides? (Circle all that apply)
   a. fertilizers
   b. bleach used as a disinfectant
   c. agricultural limestone
   d. drugs used to control parasites in animals
   e. antifouling agents
   f. all of these materials are pesticides

4. True or false: Pesticides from every major chemical class have been detected in ground water.

5. True or false: Organic agriculture is the production of food products without the use of pesticides.

Step 5. Determine how learning will be measured

Post-then-Pre-test

Directions: Read each of the statements and, in the left half of the table, rank yourself at the present time after participating in this training. NEXT, think back to your level of understanding about each statement before you participated in the training and rank your before level in the right half of the table. Circle the appropriate numbers using the following key:

1 = NO UNDERSTANDING
2 = LITTLE UNDERSTANDING
3 = MODERATE UNDERSTANDING
4 = QUITE A BIT OF UNDERSTANDING
5 = ALMOST COMPLETE UNDERSTANDING

How would you describe your understanding of the following:

1. The role of citizen participation in public policymaking.
2. The difference between a private and a public issue.
3. The importance of public policy education in Extension programming.
4. Controversy as a normal part of public policy education programming.

<table>
<thead>
<tr>
<th>Statement</th>
<th>After Training</th>
<th>Before Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Role of citizen participation</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2. Difference between private and public issue</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3. Importance of public policy education</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4. Controversy as a normal part of public policy education</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Step 5. Determine how learning will be measured

Client Evaluation Cards

- One-on-one client consultations

B. Barbour, Rutgers Cooperative Extension.
Step 5. Determine how learning will be measured

Educational Event Evaluations

<table>
<thead>
<tr>
<th>Topic</th>
<th>YES</th>
<th>NO</th>
<th>MAYBE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosing Soybean Problems</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weed Management in Corn, Soy, Forage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organic Soybean Production</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pesticide Licensing Changes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rutgers Risk Management Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve Your Record Keeping</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Step 6. Determine what changes in behavior or adoption will be evaluated; methods to use

- Medium term outcomes/impacts
  - changes in behavior
  - adoption of new practices
  - changes in decision making
  - changes in policies
  - social action
Step 6. Determine what changes in behavior or adoption will be evaluated; methods to use

- A period of time must elapse before an evaluation can take place to allow for the client to adopt a new practice or behavior
- Planning and execution is essential!
Step 6. Determine what changes in behavior or adoption will be evaluated; methods to use

- The actual change in practice must be observed or self reported by the clientele
Step 7. Evaluate medium term outcomes

Direct Observation

- Observed adoption and use of
  - New practices
  - Techniques
  - Skills
  - Behaviors
  - Applications

- Learned by clientele directly involved with your program
Step 7. Evaluate medium term outcomes

Surveys

D. Kluchinski, Rutgers Cooperative Extension, 2002.

Step 7. Evaluate medium term outcomes

- How would you rate your computer skills on the following scale (circle your rating):

  None  |  Poor  |  Fair  |  Good  |  Very Good  |  Excellent

- How would you rate your current record keeping skills/practices on the following scale (circle your rating):

  None  |  Poor  |  Fair  |  Good  |  Very Good  |  Excellent

- First survey administered to pre-registrants before the training series took place

- Follow up survey was conducted 6 months after completing the series
Step 7. Evaluate medium term outcomes

12. What has been the impact of the implementation of ICM/IPM practices on the following aspects of your farm operation?

<table>
<thead>
<tr>
<th>First check (x) all that apply, then rate each item checked</th>
<th>Improved or increased</th>
<th>No effect</th>
<th>Declined or decreased</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ profits</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ compliance with environmental regulations</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ pesticide management</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ fertilizer management</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ crop yield</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ crop quality</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>☐ confidence in ICM as a valuable practice</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Step 8. Record, review and interpret findings

- Follow good scientific method
- Record the materials and methods you used
- Utilize good record keeping methods
- Analyze data with appropriate statistical methods
- Write up progress reports to track progress and inform others
- Ask for help!
Step 8. Record, review and interpret findings

Enhancing Computerized Record Keeping Skills

Field crop, forage and livestock producers were instructed on NJCropMD (New Jersey Crop Management Database). This Windows-based crop management record keeping and financial analysis program maintains a whole farm record of inputs, activities, and fertilizer and pesticide use.

Pre- and post-training evaluations of 41 participants trained in 2001-2002 were administered; after six months the following changes in skills and adoption were measured:

Computer skills:

- In pre-tests, 69% rated their computer skills as none to fair, and 31% as good to excellent.
- In post-tests, participant's ratings changed with 25% evaluating their skills as none to fair, and 75% as good to excellent.
Step 8. Record, review and interpret findings

Record keeping skills/practices:

- In pre-tests, 56% rated their record keeping skills as none to fair, and 42% as good to excellent.
- In post-tests, participant's ratings changed with 0% evaluating their skills as none to fair, and 100% as good to excellent.
Step 8. Record, review and interpret findings

Impact of ICM/IPM Enrollment on Field and Forage Crop Producers

A mail survey of producers from northern New Jersey that were enrolled in ICM/IPM programs was conducted in 2001. The following impacts and adoption of improved practices occurred as a result of their participation:

- 77% indicated profits increased
- 39% felt their compliance with environmental regulations increased
- 80% stated they got better at managing pesticide use
- 92% improved fertilizer management
- 60% indicated that crop yields had increased
Step 8. Record, review and interpret findings

- 68% indicated improvements in crop quality
- 84% indicated increased confidence in the value of ICM/IPM techniques
- 92% indicated that they had received economic benefits from various adopted practices
  - 81% of those said this was sufficient enough to motivate them to continue using ICM/IPM practices.
Step 9. Make mid-stream corrections

Re-evaluate your program periodically

- What worked or didn’t work?
- What can be improved or changed?
- Are the objectives still relevant?
- Has the intended audience been involved?
- Have the process and results to date altered our plan or opened up new opportunities?
- When do we declare success and move on?
Step 10. Report the impact of your program

Document your activities, efforts, and impacts. The documentation should include:

- Program description and objectives
- Inputs and outputs (activities and participants)
- Evaluation instruments and methodologies
- Summary of the survey results
- Interpretation of the results
- Conclusions and recommendations

Step 10. Report the impact of your program

Share your progress and findings with supervisors, decision makers, clientele and peers via:

- Newsletters, blogs, web pages
- Media releases - radio, TV, newspapers
- Reports
- Fact sheets
- Teaching materials (slide sets, videos)
- Abstracts, proceedings papers
- Professional presentations
- Journal articles
- Award and recognition programs
Additional resources


Rutgers Cooperative Extension Program Evaluation Resources http://njaes.rutgers.edu/evaluation/


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