Program Evaluation & Survey Design Techniques

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Session Overview

- Purpose of extension program evaluation
- Evaluation survey types/methods
- Logic model, begin with the end in mind
- Formatting survey questions/question types
- Analyzing survey results
- Online survey options
- Resources
Program Evaluation Purpose

- Track participant progress towards achieving
  - Short-term goals (changes in knowledge, skills & attitude)
  - Long-term goals (changes in practice; economic, social, and environmental impacts)

- Make participants more accountable for their learning

- Help to shape and modify program content
Program Evaluation Purpose

✉ Document success stories

✉ Demonstrate value and effectiveness of program effort and resources

✉ Create transparency and improves accountability

✉ Build statewide and regional program capacity

✉ Strengthen stakeholder base

✉ Provide a driver and decision-making tool for future program efforts….”What’s next?”
Extension Program Surveys

- Needs assessments
- Pre-program assessments
- Post-program assessments
  - Retrospective assessments
- Mid-program or daily assessments
- Follow-up assessments
- Knowledge gain quizzes
- Other
Building Farmers in the West

Example

Pre-course evaluation

Participant experience & goals shape course content & teaching styles

Post-course evaluation

Determines what participants learned & actions they intend to take

Post-mentorship evaluation

Aligns mentor & mentee expectations & interests

Pre-mentorship evaluation

1 year follow-up evaluation

Did BFW help participants develop sustainable & profitable businesses, rooted in the community?
Three Tiered Evaluation Approach

- **Pre-course assessment** – Completed prior to or on the first day of the course
  - Measures participant current knowledge, skills, experience, attitudes, and learning goals

- **Post-course assessment** – Completed on the final day of the course
  - Measures changes in participant knowledge, skills, and attitudes as a result of course participation, as well as intended practice change
Three Tiered Evaluation Approach

 Follow-up assessment(s) – Initially completed one year after course completion, then annually….
 Measures participant adoption of knowledge/skills, actual practices changes, and impacts to their operation
 Measures private and public level impacts, economic, social, and environmental
Begin with the end in mind….

What do you want participants…
- To learn (skills, knowledge)?
- To realize or consider (attitudes)?
- To do (practice change, objectives)?
- To accomplish (impacts, goals)?

What are the economic, social, and/or environmental impacts?
- To participants
- To non-participants (public value)
Understand

Analyze

Decide

Develop

Implement

Impacts

Change Continuum

- Measuring impacts is measuring change
- Not all programs will lead to final impacts
- Impacts can also be movement along the continuum
- Final impacts cannot be measured at the workshop, only through follow-up
Impact and Evaluation

Crafting Impact Statements

- Stating the activity isn’t enough, must relate to outcomes such as increased jobs, sales, etc.

For example

- “Conduct market manager training”
  - Not enough
- “Market manager training will lead to increased produce sales “ through…
  - Added vendors
  - Increased attendance
  - Other _____________
# Impact and Evaluation

## Impact Statement Example

<table>
<thead>
<tr>
<th>Impact Statement</th>
<th>Evaluation Technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor GAP training will increase use of GAPs by 30%</td>
<td>Conduct follow-up survey with vendors to verify implementation of GAPs</td>
</tr>
<tr>
<td>FM manager training will lead to increased produce sales</td>
<td>Compare vendor produce sales 2 and 4 months after manager training to pre training produce sales</td>
</tr>
<tr>
<td>Farmer use of incubator kitchen expands sales of value-added products</td>
<td>Conduct pre and post (6 months) assessment of farmer value-added product sales</td>
</tr>
</tbody>
</table>
Survey Design Considerations

- Question formats – use several
  - Open-ended
  - Multiple choice
  - Yes/no
  - Likert rating scales
  - Semantic differential scales
Open Ended

- Not very reliable for surveys due to variety & coding issues

- Best for focus groups or individual interviews
  - Identify range of answers that may be used in a survey later

- Examples
  - What topics would you like to see covered in future workshops?
  - Please describe the financial benefits to your operation, family, or community which have resulted from your participation in this course.
Multiple Choice

- Provides a range of potential answers
- Answer choices must be based on research (focus group) or on standard norms (census groupings)
- The respondent chooses the one that is most applicable

How far did you travel to attend this workshop?
- Less than 20 miles
- 21-50 miles
- 51-100 miles
- 101-200 miles
- More than 200 miles

What is the value to you of attending this workshop or the benefits you estimate will accrue to your operation/job from changes you will make as a result of attending this workshop?
- Less than $100
- $101-$500
- $501-$1,000
- More than $1,000
Dichotomous Choice (yes/no)

- The questions only has a yes/no or true/false answer
- Limit of choices cuts down on survey design & respondent uncertainty
- Less information than rating scales

Would you recommend this workshop to others?

Yes  ○  No  ○
Semantic Differential Scales

Used to rate knowledge level, usefulness, etc.

5, 7, and 9 point scales (odd number)

To what extent do you understand the following subjects? *(Please check only one response)*

<table>
<thead>
<tr>
<th>Subject</th>
<th>A Great Deal</th>
<th>Considerably</th>
<th>Moderately</th>
<th>Slightly</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing business plans</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Maintaining financial records &amp; budgeting</td>
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<tr>
<td>Using cost-effective production strategies</td>
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<tr>
<td>Targeting viable customers for each product</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using cost-effective promotional techniques</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pricing products &amp; implementing pricing strategies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using effective merchandising at direct markets</td>
<td></td>
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<tr>
<td>Showcasing product variety &amp; abundance at direct markets</td>
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<td></td>
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<tr>
<td>Assessing operation specific/applicable taxes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managing labor force &amp; assessing seasonal labor requirements</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complying with regulatory issues (food safety, zoning, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessing local resources/technical support (agency, Extension, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Likert Rating Scales

- Used to measure attitudes, intentions, and actions
- 5, 7, and 9 point scales (odd number)

Please indicate your level of agreement with the following statements. *(Please check only one response)*

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Moderately Agree</th>
<th>Unsure</th>
<th>Moderately Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A business plan should be developed prior to implementing crop/livestock production</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I understand the risks and opportunities associated with direct marketing/targeted wholesale marketing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I understand the application &amp; financial requirements for participation in agency (FSA, NRCS, etc.) programs</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I have previous experience developing business plans</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I currently have a business plan for my operation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I follow a financial plan for my operation annually</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I follow a production plan for my operation annually</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I follow a marketing plan for my operation annually</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Survey Design Considerations

- Use the same questions concerning participant knowledge, skills, and attitudes on both the pre and post-course assessments.
- If using a post-course assessment only (retrospective evaluation), ask participants to provide a rating before and after the course.
- Use the same questions regarding participant practice change on both the post-course and follow-up assessments.
- The follow-up assessment(s) should include questions regarding economic, social, and environmental impacts to participants and non-participants (community, others, etc.)
Retrospective Example

Please rate your level of confidence in performing the following activities both before and after attending the workshop.

1=Not confident   2=Slightly confident   3=Unsure   4=Very confident   5=Completely confident

<table>
<thead>
<tr>
<th>Skill</th>
<th>Confidence Before</th>
<th>Confidence After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contacting a local farm for the first time</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Knowing the best time of day to make a new contact</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Knowing which farms in my area sell locally</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Understanding what farmers need to know about my restaurant/customers</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Understanding seasonal production capabilities/growing conditions in Utah</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Understanding the needs of local farmers</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
Assessment Examples

- Handouts
  - Needs assessment
  - Three-tiered program assessments
  - Retrospective program assessment
Activities

 What not to do….

 Question design
   For the knowledge, actions, and conditions outcomes listed in the sample logic model
   Determine when and how they will be measured
   Create survey assessment question
Coding Responses in Excel

- **Yes/No**
  - No = 0, Yes = 1

- **Multiple Choice**
  - Start numbering at 1 for the first choice, and so on

- **Rating scales (highest number is best response)**
  - Strongly agree = 5, agree = 4, unsure = 3, disagree = 2, strongly disagree = 1
  - Very important = 5, important = 4, unsure = 3, slightly important = 2, not important = 1

- **Handout**
Analyzing Results

Basic stats

Averages, percentages, before/after comparisons

Handout

<table>
<thead>
<tr>
<th>To what extent do you understand the following subjects?</th>
<th>Before</th>
<th>After</th>
<th>Improve</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5=A great deal, 4=Considerably, 3=Moderately, 2=Slightly, 1=Not at all)</td>
<td>Average</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The potential economic, social and environmental benefits of implementing ag/food tourism enterprises</td>
<td>3.03</td>
<td>4.07</td>
<td>34%</td>
</tr>
<tr>
<td>The activities, products, and events associated with ag/food tourism enterprises</td>
<td>2.97</td>
<td>3.73</td>
<td>25%</td>
</tr>
<tr>
<td>Benefits and challenges in sourcing restaurants</td>
<td>2.69</td>
<td>3.48</td>
<td>29%</td>
</tr>
<tr>
<td>Benefits and challenges in sourcing hotels/conference centers</td>
<td>1.95</td>
<td>3.34</td>
<td>71%</td>
</tr>
<tr>
<td>Assessing the economic feasibility of an ag/food tourism enterprise</td>
<td>2.74</td>
<td>3.67</td>
<td>34%</td>
</tr>
<tr>
<td>Tourist types and preferences related to ag/food tourism</td>
<td>2.36</td>
<td>3.63</td>
<td>54%</td>
</tr>
<tr>
<td>Creating cost and return projections (budgets) for a new ag/food tourism enterprise</td>
<td>2.72</td>
<td>3.61</td>
<td>33%</td>
</tr>
<tr>
<td>Management and resource requirements for establishing an ag/food tourism enterprise</td>
<td>2.56</td>
<td>3.59</td>
<td>40%</td>
</tr>
<tr>
<td>Tourism promotional methods and outlets</td>
<td>2.58</td>
<td>3.49</td>
<td>36%</td>
</tr>
<tr>
<td>Estimating demand for a new ag/food tourism enterprise</td>
<td>2.46</td>
<td>3.23</td>
<td>31%</td>
</tr>
<tr>
<td>Labeling and safety aspects of value-added food production</td>
<td>2.96</td>
<td>3.71</td>
<td>25%</td>
</tr>
<tr>
<td>Local value-added product processing regulations</td>
<td>2.80</td>
<td>3.67</td>
<td>31%</td>
</tr>
<tr>
<td>Safety and liability considerations in an ag/food tourism enterprise</td>
<td>2.93</td>
<td>3.72</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Average Improvement</strong></td>
<td></td>
<td></td>
<td><strong>36%</strong></td>
</tr>
</tbody>
</table>
Online Surveys

- Low cost compared to mailings
  - Mailing and processing costs high
  - Returns rates marginal
  - Multiple mailings required

- Constituents and internet access
  - The majority of potential audience must have internet access
  - Collect participant emails with registration

- Provide course information, homework/assignments, reminders, and assessments through email

- Promote upcoming programs through email
  - Good for non traditional audiences
Online Surveys

- Surveys easy to create and copy
- Coding automatic/analysis provided
- Accessible from any computer
- Allows multiple entries from same computer
- Email reminders to participants – no mailers
- May be approved by IRB
  - No IP tracking (can switch off)
  - No names or identifiers needed
- Link surveys to your website or facebook page
Some Options

- Survey Monkey
- Qualtrics
- Baseline
- Google Forms
- Google Consumer Surveys
- Kwik Surveys
- Others....
Program Impact Resources

- Washington State University Extension, WCRME project development resources [http://westrme.wsu.edu/grant-resources/](http://westrme.wsu.edu/grant-resources/)


- University of Nebraska, Lincoln, Extension impact reports [http://www.extension.unl.edu/](http://www.extension.unl.edu/)


- University of Missouri, Extension public value resources [http://extension.missouri.edu/staff/publicvalue.aspx](http://extension.missouri.edu/staff/publicvalue.aspx)

- University of Wisconsin, Program development and assessment [http://www.uwex.edu/ces/pdande/index.html](http://www.uwex.edu/ces/pdande/index.html)
Survey Resources

 Western Extension Marketing Committee, Niche Market Assessment publication
  http://valueaddedag.org/nichemarkets.html

 D.A. Dillman (2000). “Mail and Internet Surveys”
  John Wiley & Sons, Inc. New York

 Survey Monkey at https://www.surveymonkey.com

 Harvard University, Tip Sheet on Question Wording
  http://psr.iq.harvard.edu/book/questionnaire-design-tip-sheet
Thank You

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