Measuring Extension Program Impacts:
1. Setting Goals and Objectives

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Within Cooperative Extension, we are required to report program outputs, such as the number of participants who gain knowledge and apply practices as a result of participating in an Extension activity. In addition, it is essential to measure and document the outcomes or impacts of Extension programs ensure that our audience's needs are fulfilled, and expectations are met or exceeded.

Participant assessment measures whether the objectives, such as knowledge gain, were achieved (Larese-Casanova, 2017a). Assessment is an essential component of broader **program evaluation**, which helps determine if program goals were fulfilled (Larese-Casanova, 2017b). The first step in measuring impacts of Extension programs is setting **goals and objectives**.

Program Goals

The easiest way to set a goal is to ask, "What do we want to achieve with this program?" The program goal is the expected accomplishment that we set out to achieve in developing and teaching an Extension program. Goals are often broad and intangible, and set the overall vision of a program.

It is certain that we want our programs to be enjoyable to our audience. But, a goal must be much more than that.   A goal is the backbone of an Extension program, and the overall purpose for developing and delivering the program.

Measurable Objectives

Since program goals are often broad and intangible, it is important to develop specific objectives that support the achievement of the goal. Objectives are at least observable, and ideally measurable. That is, an objective is a precise, concrete, and realistic task that we are able to observe or measure participants completing as part of a program. Through developing objectives, we identify the specific desired outcomes—essentially, the full skeleton—of the Extension program.

Create **SMART** objectives to support each program goal (Doran, 1981).
Specific - Describes an action, behavior, outcome, or achievement that is observable (e.g., completing a task, learning a skill)
Measurable - Details quantifiable indicator(s) of progress towards meeting the goal (e.g., 70% of participants..., five or more...)
Audience - Names the audience (e.g., workshop participants) and describes outcomes from the perspective of the audience (i.e., what the audience will be able to do)
Relevant - Is meaningful, realistic, and ambitious; the audience can accomplish the task or make the specified impact
Time-bound - Delineates a specific time frame (e.g., today, by the end of the workshop)

Ideally, we want participants in Extension programs to do more than simply remember facts. If we want to have a greater understanding of how participants learn, we can incorporate Bloom's Taxonomy into our program objectives (Bloom, 1956). This requires using specific action words that correspond to the level of understanding we hope participants achieve. An updated version of Bloom's Taxonomy with example action words in an easy to use matrix can be found below (Anderson et al., 2001).

Table 1. An updated Bloom's Taxonomy for developing program objectives.

Levels of Knowledge	Remember	Understand	Apply	Analyze	Evaluate	Create
Facts	list	paraphrase	classify	outline	rank	categorize
Concepts	recall	explain	demonstrate	contrast	criticize	modify
Processes	outline	estimate	produce	diagram	defend	design
Procedures	reproduce	give example	relate	identify	critique	plan
Principles	state	convert	solve	differentiate	conclude	revise

If we want participants to simply **Remember Facts**, then our objective might begin with "Participants will *list*…". But, if we want to achieve a higher level of understanding, such as **Analyzing Processes**, our objective might begin with "Students will *diagram*…". Or, we can include both objectives to indicate a progression in learning.

By first developing the program goals and objectives, we essentially create a road map for an Extension program. We understand the main purpose of the program, and the tasks that we hope to accomplish. Goals and objectives are supported by a **logic model**, which will include the inputs, outputs, and anticipated impacts (i.e., short-, medium- and long-term) of the Extension program (Table 2)(Arnold, 2002; University of Wisconsin Extension, 2003). The anticipated impacts are the accomplishments that an educator aims to achieve through program goals and objectives.

Example: Wetland Explorers Summer Camp

Goal:
To develop a greater understanding of the importance of wetlands to ecosystem health.

Objectives:
1. Students will *list* the four defining components of a wetland.
2. Students will *explain* at least six ways in which wetlands benefit ecosystem health.
3. Students will *contrast* bird diversity in a wetland with that of an urban area.
3. Students will *diagram* the food web of a wetland.
4. Students will *critique* the health of a wetland ecosystem by assessing surrounding land uses, and by measuring water quality and macroinvertebrate diversity.

Table 2. A simple logic model for a Wetland Explorers Summer Camp Program.

| | Outputs | | Outcomes/Impacts | | |
Inputs	Activities	Participation	Short	Medium	Long
• Staff time • Collaboration with county 4-H/ wetland experts • Resources ($ & equipment) • Volunteers	•Wetland hike • Birding • Water quality sampling • Invertebrate sampling • Tour local wetlands	• County 4-H members • Scouts • School groups • Public	• Increase knowledge • Understand impacts to wetlands • Develop personal goals	• Increase appreciation for wetlands • Participate in a wetland project • Support from adults	• Positive attitude toward nature • Increased stewardship of nature

Developing Activities

The next step is to flesh out the program skeleton with activities that support these goals and objectives. Often times, there are many existing activities that can be adopted from other Extension programs, or from other organizations altogether. Some activities created for a national audience can be modified for use in Utah. Only after we have searched for suitable existing activities should we consider developing our own activities. Be sure to integrate the most relevant and timely research results on the subject matter, and all information for implementing activities, such as time required, materials and equipment, detailed instructions, and worksheets. That way, it will be much easier for another Extension educator to adopt your well-planned program.

Setting goals and objectives creates a clear path forward for program development, and defines the impacts to be measured through assessment and evaluation.

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