Tier Four: Progress Toward Objectives

The purpose of this tier is to document program effectiveness. Incorporating the work of previous tiers will help to accomplish this purpose. Please keep in mind that an ecologically based program addresses all four National Outcomes. However, a full evaluation of program effectiveness is expected for only your primary National Outcome area(s) as identified in Tier One.

To document program effectiveness, your team will:

- Sort objectives by short-term outcome and long-term outcome;
- Select short-term outcome indicators and identify measures;
- Prepare an evaluation plan (Worksheet 1);
- Decide on design issues;
- Decide on data analysis; and
- Report findings.

If someone asked you, "what difference are you making in the lives of those who are in your program?" what would you tell them? You may tell them that you want your participants to gain some kind of knowledge, or learn specific skills, or change the way they behave, or perhaps even change the environmental conditions in which they live. The answer that you give to the question, "what difference are you making in the lives of your program participants" is, in essence, what we mean by short-term program outcomes. In other words, short-term outcomes refer to gains in knowledge or skills and changes in attitudes, beliefs, values, aspirations, and behavior. When you evaluate, you are gathering evidence to see how much progress has been made toward the intended short-term outcomes.

Worksheet 1 at the end of Tier 4 (Short-Term Outcome Evaluation Plan Worksheet) was designed to assist projects with developing a plan to evaluate short-term outcomes. This worksheet has 5 parts; each will be discussed in the following sections. A completed worksheet has been included (Worksheet 2) to provide your team with an example of how a short-term evaluation plan may look.

Sort Objectives by Short-Term Outcome and Long-Term Outcome

Building on the foundation that you established in the first three tiers, Tier Four encourages your evaluation team to examine the relationship between program goals, objectives, activities, indicators, and measures. Clearly articulated relationships among these five areas increase your chances of finding program effects.
If your evaluation team documented program adjustments in activities, goals, and objectives, it will pay off now. The goals and objectives need to be consistent with the activities. If they aren't, revisit Tier Three to make adjustments.

Examine your current program objectives and sort them by whether they address short-term or long-term changes. Short-term outcome objectives describe how participants (or their peers, families, schools, communities, etc.) will change over the short-term as a result of the program. Long-term outcome objectives specify expected long-term changes. As you sort objectives, consider which ones you plan to measure for the evaluation. It is not always realistic to assess success relative to all objectives. Refer to the Sorting Objectives Worksheet to complete this activity. After separating your short-term and long-term outcome objectives and deciding which to measure, Box 1 on the Short-Term Outcome Evaluation Plan Worksheet can be completed.

Short-Term Outcome Objective:
By the end of the 1996-97 school year, all children who received tutoring will have maintained at least a "C" average in reading.

Long-Term Outcome Objective:
By the end of the 1998-99 school year, all children who received tutoring will have maintained at least a "C" average in at least four out of five classes.

Select Short-Term Outcome Indicators and Identify Measures

Box 2 on the Short-Term Outcome Evaluation Plan Worksheet asks, "What is the evidence you will need to show progress toward your short-term outcomes?" Evidence of change can come in many forms. These could be existing data like school records or census information. Evidence could also be observed behavior or interactions. It could also be a paper and pencil questionnaire that asks a set of relevant questions, some sort of a standardized test, or products such as portfolios or posters. It is important to understand that for any outcome, there are multiple kinds of evidence you can collect to show change. The kind of evidence you examine should be determined based on your program, research and practice around your outcome areas.

In our example, the short-term outcome objective, indicator, and measure of program success were obvious. This is not always the case. Consider a teen pregnancy prevention program with fourth and fifth grade students. Few or no pregnancies would be expected at the end of program years one and two, so what are the outcome indicators?

In general, effective indicators are credible, practical, useful for program improvements and reporting, and clear about what they measure (Hendricks, 1996).

Indicators are likely to be credible when they:
- Are based on data that is verified often;
- Are based on a known and consistent methodology; and
- Measure real changes.

They are practical when they:
- Cost what they are worth;
- Are derived from existing data when possible; and
- Have been used effectively by others.

They are useful for program improvements and reporting when they:
- Measure change at the appropriate unit of analysis;
- Use measures sensitive to change; and
- Have been measured and reviewed as appropriate.

They are likely to be clear when they:
- Measure the outcome directly;
- Measure only one aspect of performance; and
- Are operationally defined in precise terms.

In the teen pregnancy prevention program, outcome indicators based upon the research literature might include gains in knowledge about reproduction and adolescent development, attitudes toward sexual involvement, stage of pubertal development, level of sexual involvement to date, and intended sexual behaviors. Measures might include pre- and post-program surveys or qualitative methods which have been used and validated in similar programs elsewhere.

Your team's task is to examine and discuss your short-term outcome indicators and related measures. The "Evaluating the National Outcomes" link on the CYFERnet Evaluation page contains literature reviews, suggested evaluation instruments, and annotated bibliographies for various key indicators for children, youth, parents/families, and communities. Another good source of measures is available from the Buros Institute of Mental Measures (http://www.unl.edu/buros).

Decide on Design Issues

"While the appeal of standardized instruments...is understandable, sole reliance on them in evaluating family support programs, with their multiplicity of desired outcomes, is indefensible. A combination of measurement strategies, including development of program-specific...instruments, is critical" (Jacobs, 1988, p. 60).

The next step in preparing to assess program effectiveness is to consider various design issues. Your team will need to make decisions regarding:

- Who or what will be your best source of information? Participants themselves? Parents? Teachers? Neighbors? Schools? Social Service Agencies? Other existing records? etc. Go to http://extremist.uwex.edu:80/ces/pubs/pdf/G3658_3.PDF for a discussion of different types of sampling.

- What is the unit of analysis? Will you examine changes at the individual level? the family level? the community level?

- Will it be necessary to obtain similar information from or on a comparison group? Will a comparison or control group strengthen your evaluation? Are statistical comparison groups available or will you need to collect your own data?

- What will you need to do to get your information? Administer surveys? Find trained observers to code behavior? Look through existing data? Interview key people? etc.

- When will be the best time to collect the information? At some specific intervals during the program? Throughout the program? At program exit?

- How will you define various program aspects such as amount of program services received or degree of participation?

- When has a participant formally entered, completed or dropped out of a program?

- How often will you need to gather the information? Pre-post test? Pre-post-follow-up? At other key intervals?

- Who will collect evaluation data? How will they be trained?

- Will you want to compare program effects for different groups (such as gender, age, grade, SES, etc.) Consider the demographic or other information you will need to make such comparisons.

After thinking about these questions, your team should be ready to complete Boxes 3 and 4 on the Short-Term Outcome Evaluation Plan Worksheet. Box 3 asks, “Given the evidence you will need, how will you go about collecting the information/data?” and Box 4 asks “Given the information collection plan, what tasks will be required and who will carry them out?”

Once your team has addressed these and other design issues your evaluation contact may raise, you are ready to discuss data analysis. For further guidance on design issues, go to http://extremist.uwex.edu:80/ces/pubs/pdf/G3658_4.PDF or http://www.wkkf.org/Publications/evalhdbk/chapter5more.htm

Decide on Data Analysis

Data analysis serves two purposes:

1. To describe with summary statistics; and
2. To examine relationships among variables.

Your evaluation contact will bring expertise in analysis methods to the team as you determine the questions, variables, and relationships of interest. An overview of data analysis is available at http://extremist.uwex.edu:80/ces/pubs/pdf/G3658_6.PDF

Report Findings

Formal and informal reports discussing the results of the program will be of interest to other stakeholders such as community members, local and state government officials, and other service providers. A discussion of Extension accountability is available at http://www.ces.ncsu.edu/depts/fcs/pub/reviews/review_extension_accountability.html

Evaluation results are most useful when a regular feedback loop is established with service providers and other stakeholders. This is illustrated in Tiers Two and Three, but is true throughout a program's life.

There are several issues to consider when deciding how to report your findings. Below is a list of questions for your team to discuss.

What are your plans for the information/data? How will you use the information? For program improvement? Communicate program success? Obtain more funding? Report to funders? Marketing the program to others? etc.

Did the results show that your program was successful in achieving its intended short-term outcomes? What can be learned from the results?

How will you communicate successes, concerns or lessons learned? Overviews? Visuals? Reports? Brochures? Impact statements? etc.

Who will have access to the results? Who will be your audience for the evaluation reports?

What resources will be needed to distribute your results?

After considering the questions above, your team can develop a plan for reporting your evaluation findings. This should be recorded in Box 5 on the Short-Term Outcome Evaluation Plan Worksheet.

To see how some programs have reported their findings, follow the "Evaluation Made Easy: Examples of Practical Evaluations - Bulletins" link on the CYFERnet Evaluation page (http://www.CYFERnet.org/evaluation.html). Most of these bulletins contain a section called "Reporting Evaluation Results" that describes how different projects have communicated their evaluation results.

At the time the team began Tier Four, they were already well aware of the success stories behind their program. Now they faced the challenge of demonstrating program effectiveness to others.

The team began by reviewing program goals and objectives. Since they had made periodic adjustments as necessary, they felt that goals and objectives and the relationship between each to program activities and community needs and assets were well articulated and an accurate reflection of the program. As they sorted objectives into short-term and long-term outcome categories, they realized that they had a lot of objectives. It became clear that it would be difficult, if not impossible, to measure all of them. As a result, they spent a good deal of time prioritizing objectives to determine which ones were essential to assess.

After arriving at a manageable number of key outcome objectives, the team considered indicators and measures of each. In some cases, the indicators and measures were obvious (i.e., report card grades), but in others, they were less clear. For example, one issue the team grappled with was how best to assess personal growth in teens. Feeling that quantitative measures were not satisfactory, they explored various qualitative methods that would capture the essence of personal growth at the individual level.

The team agreed that the individual was their unit of analysis and utilized survey measures, interview data, and school records to assess improvements in children and teens. Data were collected from all participating children and teens. In addition, teachers who had contact with participants were interviewed. Finally, parents of children and teens answered questionnaires. Parents willing to be interviewed provided more in-depth information regarding changes in their children. Data were collected prior to program entry/teen trainings (pre-test) and at the end of each semester (or upon program exit).

Since the program was in the pilot stage, the team was able to use children from other classes as a comparison group. Children who received less than a “C” on their last report card and in the same grade as the pilot classroom were used as a comparison group. Additionally, eight teens were chosen to serve as controls for the tutors and were matched by grades, grade level, gender, ethnicity, SES, and school attendance.

The data were collected and analyzed by a few graduate students for course credit. The team asked them to compare the relationships among key variables for the participants and comparison groups to look for between group differences. To explore significant differences in mean scores between the target and comparison groups, Analyses of Variance (ANOVAs) with post-hoc significance tests were performed. In addition to comparing target groups to comparison/control groups, the team assessed differential program effects among participants. Finally, graduate students looked for recurring themes in responses to the qualitative data.

The team wrote the annual report that was submitted to CSREES. In addition, they wrote several informal reports that were disseminated to parents, teachers, the local government, news stations and papers, and other stakeholders.