So, you’ve just started your new job as an EIRP agent. Maybe you have lived on the reservation community all of your life, or perhaps this is your first experience working with Native Americans. You may be in a fairly remote location, and may or may not have contact with a county extension office nearby. Sometimes EIRP agents are left quite alone to learn their jobs, and some may be at odds about how to start, while at the same time being overwhelmed at how to learn the university system and paperwork at a distance from those hallowed campus halls. The Native American culture might seem quite different from the culture in which some agents came from. Even Native American agents have to adapt to the university extension “culture” and adopt a viewpoint from outside their own culture.

Thus, culture shock of varying degrees may affect the new agent. Culture shock generally follows a pattern of periods of enchantment with the new culture, followed by disillusion with it, and then by adaptation to the situation, over a fairly long period of time (usually at least a year). Some people never pass the disillusion stage and either leave the job or remain negative in their relation to the situation. You may ask why I am discussing culture shock in a section on understanding community needs. This experience of culture shock will permeate your perception of how you see the community that you are working in: first you may be overly optimistic and naïve, next you may become excessively pessimistic and think that there is no hope for improvement of the situation, and finally, as you adapt, you will comprehend the reality of the circumstances. Then you will truly be able to see the possibilities and problems that exist from a more balanced viewpoint and you will be able to better choose the pathway to take in implementing your programs. Usually, the first year or two is a disorienting time, but you should expect that, and realize that it is a part of the experience of getting to know a community.

One of the easiest things to do when you first arrive, is to look through the old files of your predecessor(s), providing you are not the first one to occupy the job. These files will give you some clues about programs that were attempted and implemented in the past. If there are staff or community members that are familiar with the past programs, you can also ask them about what happened in the past. There may have even been a needs assessment done at one time or another. Of course it is still important to do your own assessment of community needs, if much time has lapsed since the old one was completed.

It’s important to find someone to introduce you to people in the community; someone may appoint that person, but if not, you should seek out a knowledgeable person or two to help you. This person is the gatekeeper to the community, and will help open doors for you at the outset. They will be a source of information for you as well as someone that can introduce you to key people in the community, who can also give you more information about the community. Over time you will also stumble across or seek out other key informants with whom you can do informal interviews, asking them about
community needs and other issues. In the reservation community, I would advise that you begin by doing this in an informal matter as a part of the conversation, without taking notes. You can jot down what they told you after you leave. Later, when you feel comfortable with various people, you could take notes, if needed.

Early on, it is a good idea to attend various meetings and events in the community that are open to the public, or where someone has invited you to attend. You can learn a lot by observing what happens at these meetings and events as well as the topics of discussion. If you are invited and/or request to get on the agenda of a meeting, you can introduce yourself and your program and mention that you are interested in understanding the needs of the community. This may outright elicit some comments on community needs, or it may help you set up future contacts or meetings. I would advise being low key about obtaining information, don’t force or badger people or be too inquisitive. Native American communities may have had bad experiences with outsiders using information for their own gain, and with government agencies that have not always benefited community well being. Wait to be invited into an individual’s home—the door to door salesman act would probably not be appreciated, especially if you have a survey instrument in hand. Unless you know the individual fairly well, or they have attended a workshop or other activity, I would not recommend telephone interviews to assess needs or evaluate programs.

A few cautions about looking at community needs—at first you should limit the areas of needs assessment—don’t try to tackle the whole gamut of needs that exist in a community. You could get more than you can handle and build up expectations that all of these needs will be met. Limit the areas of focus to two program areas at first—later you can expand as your capacity to collaborate and delegate increases. Those program areas usually are in your area of expertise, although occasionally you have to extend outside your comfort zone to another area, but this is best done after you have more experience. For example, you may want to focus on agriculture and youth programs first and then expand to family and consumer science later. It’s easy to spread yourself too thin, and when you do a needs assessment you will end up with too many areas to cover.

There may already be organizations in your community that are meeting needs, and you don’t want to duplicate efforts, though you may want to collaborate with these groups. Therefore you can do an asset map. An asset map is a written document of what agencies and organizations exist and what they do, and how they may coordinate with each other. Asset maps can be quite complex, but you may just want to cover the basics. You can visit each organization, or you can ask your gatekeeper and others about what they do. You can also do an asset map for people, asking the people what skills they have, written or by interview—this is often good to do when recruiting 4-H youth leaders. Some asset maps are extremely complicated and can be invasive, so it’s best to use a more simple approach. For 4-H leaders, you may have a list of abilities that they can check off, as well as an open ended written or oral question asking them what they would really like to do.
After you have been in the community for a few months or a year, you will need to choose an advisory committee for your extension programs. You may have one overall advisory committee, or you may split it into two or more groups for different subject areas, i.e. one for agriculture and one for 4-H. You may get advice from your gatekeeper or other knowledgeable people about who to invite to be on the committee, and by this time you may also know some folks that would be good to invite. Committee members normally serve 3 years, with rotation to add new members once a year, so that 1/3 of the committee changes each year. This is not a hard and fast rule; if you have someone that would be a valuable member, and can only serve for less time, that’s also an option. Longer terms are also possible, but some changeover is needed over time to get new ideas and to not exhaust your allies. When you have an important decision to make or direction to take, I’d advise you to include your advisory committee in the decision, as later on they can support you if your direction proves problematic or unpopular with some people or segments of the community.

Another way to obtain information is through the use of focus groups. You may use your advisory committee as a focus group, or you may invite others to attend. Focus groups consist of about 5-10 people; you come to them with a set of questions about the issue you’re interested in—be sure to invite a variety of people who are not just going to rubber stamp your ideas. Go around the room, giving each one the chance to state their answer and then repeat with the next question, etc. in round robin fashion. If they are shy about speaking, have them write down their answers first and then speak, or have them write them down on a sheet of paper and then post them on the wall or a flip chart, and you can read them to the group.

When prioritizing needs, you can employ a method called nominal group technique. This method works well if there is division within the group or if certain people tend to dominate the decision making process. You ask a group of 10-12 participants to jot down the 5 most important needs they see in their community, in your program area, on 5 index cards. They turn in the cards to you, and you post them on the wall. You give each person a short chance to talk about their issue, eliminating duplications. You have to control how long each person speaks—it should be just a short stump speech, and deter folks from going on tangential subjects while speaking. You give them sticky dots and they give 5 votes to the most important topics. You then calculate the issues that have the most votes and prioritize the needs by those that have the most votes, and you work on addressing the top few issues, provided they are all feasible alternatives.

Another method to prioritize needs comes from a practice called participatory rural appraisal. Participatory rural appraisal aims to include community members in assessing needs, planning and evaluation of community programs. They become “coworkers” on an equal basis with the program implementers. To prioritize needs, you can use a matrix where participants (10 or less) list needs on the horizontal axis and benefits of meeting each those needs on the vertical axis. Participants rank the need as related to the benefit as 3=more important, 2=important, 1=less important. The columns are then totaled at the bottom to get the rank of the highest priority, which is the highest total.
The participants have to come to consensus when they rank 1, 2, or 3 for each benefit as it relates to each need. They may list several benefits for each need (*, #, +, ~) and may come up with an amazing amount of benefits. If you have a duplication of benefits, you can cross out that benefit. The most important issues, in this case, are higher cattle prices and better recordkeeping, so you would address those first. You can extend this exercise by using the same needs categories and replacing the benefits with how to solve the problem on a new matrix to elicit ideas from participants on how to improve the condition of the need. These exercises, however, can be time consuming, but they do build on group synergy to provide a more defined picture of needs and solutions.

Another participatory rural appraisal method consists of mapping the community. A group of community members gets together and they draw a map of the community, with buildings, agricultural fields and crops, livestock, and houses drawn on a poster board or flip chart sheet. They can also include the inflow and outflow of agricultural or other distinct products with arrows. The map can give you an idea of where things are located, how people perceive their geography, and is something the group can keep for future reference. Youth may be invited to draw. Individual ranches or farms may also be mapped, if the owners are open to it. Nominal group technique and participatory rural appraisal activities are best introduced after you have done some informal interviews and gone to various meetings with the people who will participate.

The last method I will describe in this gathering information about needs is surveys. Surveys are questionnaires that have a series of questions that participants answer, and they can be used for needs assessment, planning or evaluation. The reason that I put it last is because it can be an overly formal, intimidating document in a reservation setting. Although many assessors of needs use surveys first, either by mail or telephone, when

<table>
<thead>
<tr>
<th>Benefits</th>
<th>NEEDS OF THE CATTLE ASSOCIATIONS</th>
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<tbody>
<tr>
<td></td>
<td>Higher cattle sale prices</td>
</tr>
<tr>
<td>More profit*</td>
<td>3</td>
</tr>
<tr>
<td>Buy more cattle*</td>
<td>3</td>
</tr>
<tr>
<td>Fix buildings, fences*</td>
<td>2</td>
</tr>
<tr>
<td>More calves born#</td>
<td>2</td>
</tr>
<tr>
<td>Cows have calf every year#</td>
<td>2</td>
</tr>
<tr>
<td>More profit#</td>
<td></td>
</tr>
<tr>
<td>Can rotate pastures+</td>
<td>2</td>
</tr>
<tr>
<td>More forage+</td>
<td>1</td>
</tr>
<tr>
<td>Better inventory~</td>
<td>2</td>
</tr>
<tr>
<td>Cull Sales increase~</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
</tr>
</tbody>
</table>
working with Native Americans the use of surveys should be carefully considered and only used in certain context, as they may be seen as an invasion of privacy. I would not advise using mail or telephone surveys in a random manner, without previous contact with the people being surveyed. If you want to use a survey, it is best to give the survey to a group that you are already familiar with at a meeting or workshop and collect it there. Sometimes mail surveys will not be returned in a timely manner or at all. You could use a telephone survey to contact people who are familiar with you and your programs.

These are just some ways of understanding your community’s needs. You may find others that work as well or better, and may decide not to use these. It’s important to keep assessing needs, though, even after your initial introduction into the community. There are examples of methods of assessing needs in the Appendix.

**PLANNING, IMPLEMENTING, AND EVALUATING YOUR EXTENSION PROGRAM**

*Dr. Sabrina Tuttle*

Extension programs in the U.S. use various models of planning and evaluation of programs. Your university will most likely have a preferred model, and you will hopefully learn about it during in-service or other training. We will briefly look at two of the most common models, TOP and the logic model. Although parts of each of these models may be problematic when dealing with Native American communities, due to cultural differences between the model designers and the community, unfortunately we have to be able to communicate our planning, implementation and the results to our university administration, and have to employ whatever model they choose.

TOP originated from Bennett & Rockwell (1995) and helps target outcomes, track progress, and evaluate performance. In this model, extension educators assess specific needs and issues in line with their agency’s mission, prioritize social, economic and environmental needs (SEE) and partner with others in teams to achieve preferred results. Teams target long term social, economic and environmental outcomes, as well as short and medium term outcomes. They design programs to accomplish the selected outcome targets and assess design. Teams also select indicators of program success and track how well they were implemented, and targets attained. They plan evaluations to see how well the program contributed to the preferred outcomes, then implement the program, track outcomes and evaluate the program’s contributions. Then the team uses the evaluation results to improve programs, document accountability, and market programs. The highest aim is to improve the social, economic and environmental conditions in a community. An intermediate step is to foster a change in knowledge, attitudes, skills, and aspirations (KASA) of the participants, which helps the participant to make changes in their lives and work.

The seven levels of the TOP hierarchy are:
- **Level 1**: SEE, Social Economic, Environmental conditions in the area
- **Level 2**: Practices--that individuals or groups may adopt from extension programs
- **Level 3**: KASA
- **Level 4**: Reactions: favorable or unfavorable responses to topics, presenters, methods
Level 5: Program Participants—Individuals, families, groups, organizations, communities
Level 6: Activities—various educational methods and events that inform, educate or train audiences
Level 7: Resources—time, money, staff & volunteers that plan, implement & evaluate programs
The hierarchy is 2 sided, beginning with the process of program development and planning on the left, a continuing with program performance and evaluation on the right. Here is a diagram of the TOP model: (from Bennett & Rockwell, 1995)

![Diagram of TOP model](from Bennett & Rockwell, 1995)

The logic model takes a situation, needs priorities, and intended outcomes. It views inputs, which are what we invest, such as staff, volunteers, time, money, materials, equipment, technology, and partners. Inputs are followed by outputs, which are activities, such as conducting workshops, developing curriculum, training, facilitating, working with media, and delivering services, as well as who we reach—participants, clients, agencies, decision-makers, customers. Inputs and outputs result in outcomes and impacts, short, medium, and long term. Short term results include learning, awareness, knowledge, attitudes, skills, opinions, aspirations, and motivations. Medium term outcome-impacts consist of action, behavior change, decision making, policies, and social action. Long term impacts are social, economic, civic, and environmental conditions that change.

Comparison of the TOP model and the logic model:

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<thead>
<tr>
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<th>TOP</th>
<th>LOGIC</th>
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</thead>
<tbody>
<tr>
<td>Resources</td>
<td>Inputs</td>
<td>Outcomes—short and medium term</td>
</tr>
<tr>
<td>Activities</td>
<td></td>
<td>Impacts-Social, Environmental, Economic Indicators</td>
</tr>
<tr>
<td>KASA-knowledge, attitudes, skills, aspirations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SEE-Social, Environmental, Economic Indicators</td>
<td></td>
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</table>
You can see that these models are very similar, with the exception that the TOP model has a feedback loop. I would like to propose a circular logic model, because the linear model seems limited. We do not always see a logical progression from inputs and outputs to outcomes and impact in the general extension population, nor on Indian reservations, where there are often barriers of cultural differences, education, and higher incidences of diabetes, alcoholism, and poverty that prevent this logical progression from occurring. As new agents, particularly, we may have to go through the cycle more than once to see outcomes and impacts, to recycle through the circle. Here are diagrams of the linear and the circular logic model:

**LINEAR LOGIC MODEL**

```
SITUATION → INPUTS (Resources) → OUTPUTS (Activities) → OUTCOMES-IMPACT
```

**CIRCULAR LOGIC MODEL**

```
OUTCOMES-IMPACT
```

```
SITUATION
```

```
OUTPUTS (Activities)
```

```
INPUTS (Resources)
```

So, what do all of these models mean, when you get down to the bottom of managing your programs? Although you are often immediately propelled into action and developing programs, it’s necessary to look at the needs of the community, then to see what needs to change, identify indicators of change, and then design your programs to
promote change, measure those indicators, and adjust or expand your program to march happily into the future. Sounds like a logical, progressive action that should yield wonderful results every time. Well, not everything moves in a linear, logical, hierarchical manner, with progression towards our goal every time, even in Western societies which invented this linear, logical, progressive viewpoint. Non-Western societies, such as Native American communities, do not necessarily follow this model, and when we try to force them into our mold, due to our universities’ requirements, we may come up with less than we plotted out, or something entirely different, but that could also be positive.

In order to fit into the university mold, as well as to aid our planning and evaluation strategies, we should develop short and long term goals and objectives for our program, with indicators noted in our objectives. The goals and objectives should be measurable and specific. We can find appropriate indicators from existing or past needs assessments. For example, an indicator could be water quality. Say that you found water quality was not good surrounding agricultural fields in your area, and that producers were also concerned about the high price of fertilizer. Your short term goal would be to reduce the excessive use of fertilizer and decrease the cost of fertilizing; your long term goal would be to improve water quality and to increase the producer’s profitability. Your objectives would be, for example:

- Field crop producers will become aware that water quality is a problem
- Field crop producers will adopt 2 practices that will reduce fertilization runoff
- Field crop producers will increase their profit by 5% by using less fertilizer

If producers reduced excessive phosphorous or nitrogen fertilization, water quality should increase, and your extension program would plan to do a workshop in decreasing excessive fertilization use. You could evaluate that program by later asking producers if they reduced their fertilization rate or amount, and if they saved money doing so. Then you would have environmental and economic indicators to report.

Some goals and objectives, however, are not purely numerical and attempt to encompass somewhat nebulous changes in behavior, attitudes, and even social structures. These goals and objectives relate to qualitative alterations. For example, if you are trying to look at improvement in youth programs, you may have a goal of increasing the level of responsibility in youth. Your objectives might be:

- Youth will show enthusiasm and helpfulness as they participate in 4-H activities
- Youth involved in 4-H will become involved in other community activities

Your evaluation would document how these changes were manifested by participants. You have to be cautious to state in your evaluation, however, that your program has only contributed to these changes in attitudes and behavior, because there may be other influences that affect them, and you have no way of proving that your program caused the change.
What if nothing much happened after you did your workshop? Well, the first stage of adoption of a technology or behavior is awareness, followed by attitude change, then behavior or skill change, all at the individual level, and then social, environmental, and economic change at the community level. Your first workshop may have only created awareness, or maybe attitude change. You may need to do another workshop, write a newsletter or news article, provide a practical demonstration, or a variety of things to promote adoption. The other thing is that people adopt new technology or ideas at different rates. Innovators are the first to adopt, followed by early adopters, early majority adopters, late majority adopters, and laggards. You may need to get the support of some early adopters or early majority adopters to promote adoption in the other groups. Innovators, however, are so far ahead of the rest, they usually are not good at communicating with the slower groups. You may need to find an opinion leader, an early adopter who is a respected member of the community to help endorse technological or social change. Using local groups, including youth, to plan programs, can also help your activities get accepted in the community.

Why do we evaluate our programs? Because the university requires us to and for accountability? Well, those are certainly good reasons, but the main reasons are that we would like to see how we are doing and how we can improve our programs and their effectiveness. We want to show not just how many people attended an event, but also changes in knowledge, attitudes, intent to change a practice and change in practice, and behavior change. Some of the ways to evaluate include: workshop evaluations, focus group meetings, observation, photos, narratives of events and results, success stories, and many more.

Workshop evaluations normally take place at the end of a workshop, although they can be sent out at a later time. I would not recommend pre and post tests during a workshop with Native American audiences, or any audiences that are not in a formal classroom setting. They can be intimidating and cause you to lose trust with your audience. There are two types of workshop evaluations, a Likert scale questionnaire and a questionnaire where the participant self-evaluates how much he/she knew before and after the workshop. Both of these are best done at the end of the workshop, preferably before refreshments, and before people leave the area. If you wait until after the workshop, by mail or telephone, you are less likely to get as many evaluations completed. But if you are looking for medium or long term change, sometimes the only way is to wait until a time period has passed, and then send out the surveys or call folks. Make sure the evaluations are fairly simple, one page or less, and that you fully explain how to fill them out and provide pens or pencils for those who don’t have any. The basic Likert scale evaluation is on a 5 point scale, where there are several statements and participants circle a number or phrase about how well they agree with the statement. Then you may have some open ended questions at the end. For example:

1. I learned how to reduce fertilization of crops
   Strongly Agree  Agree  Not sure  Disagree  Strongly Disagree

2. I plan to use the information on fertilization
   Strongly Agree  Agree  Not sure  Disagree  Strongly Disagree

3. If you plan to use the information on fertilization, how will you use it?
4. What were your two favorite things about the workshop?

5. What could have been done better in the workshop?

6. Are you interested in more workshops? If so, on what topics?

To calculate the values on the Likert scale, you would give strongly agree a score of 5, agree, a score of 4, not sure, a score of 3, disagree, a score of 2, and strongly disagree, a score of 1. Then you would take the average score of the participants’ responses for each question, with a higher score being desirable. The second question and third open ended question is designed to elicit the intent of the participant, which indicates that they will most likely do what they answer. The other questions give you an idea of what was best and worst about the workshop, and also has a mini needs assessment on future topics.

The self evaluation example looks like this:

<table>
<thead>
<tr>
<th>Knowledge/ Skill before Workshop</th>
<th>Knowledge/ Skill after Workshop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing levels of fertilization</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Calibrating fertilizer spreaders</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

Five is the highest level of knowledge or skill, and 1 the lowest. You would subtract the difference of knowledge/skill before the workshop from knowledge/skill after the workshop to get the change in knowledge or skill, and then average each participants’ responses for each question. Make sure that you do both parts of the self evaluation after the workshop, because otherwise it could be intimidating for participants to rank themselves. You could also include open ended questions in this type of evaluation. You might think that this sort of evaluation could be biased by dishonesty, but research has shown that the answers reflect the true status of the individual’s skill or knowledge.

You should give directions on the printed evaluations about how to fill it out, as well as give the directions orally. The language should be at the appropriate educational level throughout the evaluation. Also, tell the participants that the evaluation is anonymous and its purpose is to have them review the material and you will use it to improve our future programs. Be sure to give directions and distribute the evaluation while the group is still together, and has not dispersed for a meal, field activity or small group activity. Otherwise it is a bit like herding cats, where you can’t get folks to follow your directions after they scatter. There are full examples of each of the above types of evaluations and others in the appendix.

Often we emphasize these types of workshop evaluations, to the exclusion of other methods that may be more applicable, especially with our Indian communities. Focus group meetings after a tour, a workshop, demonstration, or series of workshops or an entire program can also function as an evaluation tool. You would follow the focus group directions given in the understanding community needs section of this book, but then you would gear your questions toward evaluating your program. You can also do individual informal interviews.

Success stories are a creative addition to an evaluation—these may not be only quantitative successes such as money saved, but also things that affected individuals positively as a result of your program. For example, when I was working with the Seminole Tribe, we had a nutrition and cooking class, and the youth worker who attended
it stated on his evaluation that in the class was the first time he had ever felt accepted by a group. Youth programs seem to yield such examples, and it is often hard to quantitatively document the effectiveness of youth programs. Keep track of pertinent quotes that people say to you, as they often show important impacts.

Observation of activities, events and the local environment with an accompanying narrative and photos can show changes in a qualitative manner. Observation often shows learning and improvement of skills, physical evidence of change (such as a learned practice in action), and changed behaviors. They can be as simple as counting the adoption of a practice, for example, how many people or if any are using a new sprinkler system, or more involved such as inventorying skills youth learn at a camp or in an arts and crafts club, or noting how youth have demonstrated new leadership skills. Observation is generally a non-invasive technique, as long as you are not trespassing on property.

Reporting your evaluation results is important, and this does not include merely your university’s annual report. You can use other formats and media to report to Tribal officials, your participants and the public. These formats will be less tedious and lengthy than your annual report, and should be short and concise, even entertaining. Tribal officials may be interested in who you reached and what you did, as well as a simple summary of your results with photos, but will not have time to look through the results of every evaluation. Your participants may like to see a short bulletin with photos, and you might write articles in the newspaper for the public.

There have been many suggestions to you on meeting your communities’ needs and evaluating your programs, and some cautions to use when working on Indian reservations, but you should feel free to try other methods and discard these ideas if they don’t work in your situation. It often requires as delicate balance of experimentation and innovation with existing techniques to fully integrate your program into the community.

Here are some websites that have additional information on needs assessment and evaluation: (Note--some of the methods listed are not always advisable to use with Native American audiences)

Needs Assessment:
http://srcd/msstate/edi/publications/227/227
http://extension.usu.edu go to publications, search for needs assessment

Planning and Evaluation:
http://www.uwex.edu/ces/lmcourse
http://www/iwex/edices/pdande/evaluation/evallogicmodel.html
http://citnews.unl.edu/TOP/english/index.html
www.extension.psu.edu/evaluation
http://national.unitedway.org/outcomes
http://www.wkkf.org/Programming/ResourceOverview.aspx?CID=281&ID=3669--you can order a free publication on the logic model from the Kellog Foundation on this site