Extension evaluation is a fundamental activity for measuring program success. In 1959, Donald Kirkpatrick published the description of a Four Level Evaluation Model (Four Levels, in short) in series of papers published in the *Journal of the ASTD*. ACES agricultural outreach teams can use LEM with rigorous documentation of outcomes and impacts.

**Kirkpatrick’s Four Levels:**
Level 1: REACTION
Level 2: LEARNING
Level 3: BEHAVIOR
Level 4: RESULTS

**Application of Kirkpatrick’s Four Levels:**

1. **Reaction (Client Satisfaction)**
   - This is the most basic form of evaluation that should be conducted at every Extension event because it seeks audience's satisfaction level immediately after an educational event.
   - These surveys are inexpensive to develop and less time consuming during execution (immediate feedback instruments).
   - Survey instruments for documenting reactions are simple and short, unless they are combined with one or more of the higher assessment levels. Typically, reactions are gathered via rapid surveys with multiple choice questions instead of long probing questionnaire.
   - Surveys instruments for group assessments can be paper-based or electronic.
   - Survey instrument itself can be used to report the data after simple analysis and share with team members.

2. **Learning (Knowledge Change)**
   - Evaluations at this level assess the simple changes in audience attitude, knowledge and skills that are elements of learning. Survey of learning is a critical component of the overall impact assessment for a focused Extension program because it indicates audience's desire to change and their need to adopt new technologies.
   - In the simplest form, pre- and post-test surveys can be conducted at Extension events to assess gain in knowledge in the audience. Most Extension personnel use self-evaluative instruments but individual presenters in an Extension event could develop their own training-specific instrument (see below). A combination of open-ended and multiple choice questions can be used in the survey instrument. Interviews can also be conducted to assess learning.
   - Survey instrument could be a combination of paper-based (open-ended) and electronic techniques (multiple choice questions).
   - To document change in abilities, skills, and confidence levels presenters can use training-specific pre- and post-tests.
3. Behavior (Technology Adoption)
- This is a high level of evaluation that is more rigorous and time consuming to conduct compared to reaction and learning assessments.
- Focus is on the implementation of improved practices as an indicator of learning (outcome). Survey instrument may be used multiple years to measure change in behavior over a period of time or project timeline.
- Behavioral surveys may need assistance and cooperation from other colleagues. Allow ample time to audience to respond by including evaluations in the program agenda.
- Techniques may include observations, testimonials, off-site interviews, problem analysis, and on-farm surveys.

4. Results (Impact Assessment)
- Result or impact assessment is a critical component for documenting overall success of an educational program.
- There are two general ways results or impact evaluations can be conducted:
  - Process A. Impact statements can be compiled loosely from previous surveys of reaction, learning, and technology transfer (adoption). This process may be necessary for projects that did not have an evaluation component when they were initiated.
  - Process B. Impact statements can be compiled from direct observation or assessment of clientele via various specific instruments. Study of members of the Project Advisory Panel could be a cost-effective technique for estimating impacts. Extension impact survey instruments typically focus on collecting economic and environmental benefits of a transformational educational program.
- Impact assessments may be conducted via interviews, direct farm visits, observations on technology adoption, comparison of technology adopters versus technology nonadopters (or early versus late adopters), study of farm logs and journals, photographs, etc. Remember, impact assessment may require additional funds in designing and implementing the evaluations.

Final tip: If you need help designing survey instrument, contact the program in-charge, grant project director or Extension administration ahead of time.

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For more information, call your county Extension office. Look in your telephone directory under your county’s name to find the number.

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