

Collecting Evaluation Data: End-of-Session Questionnaires

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End-of-session questionnaires are commonly used to collect immediate feedback about educational events including workshops, training, conferences, field days or meetings. We are usually anxious to know how people reacted to our effort and what they learned. Because the participants are in one place, we can get information from them quickly and easily. This information can help us improve our programs and demonstrate results.

Collecting end-of-session feedback is important for various reasons:

- It helps us know immediately what worked and what didn't.
- It provides information for improving the current program and designing future programs.
- It provides information helpful in accountability reporting.
- It shows participants and stakeholders that we are interested in improving and that we value their input.

This manual provides a variety of sample questions and ways to format questions to help you develop your own end-of-session questionnaire. It will help you determine your specific information needs and write questions to answer those information needs. This manual **does not** include every possible question. It **does not** present a single form to use. Nor, does it identify the **best** questions to ask. That will depend upon your event, audience and information needs. Be selective, use what seems appropriate and/or create your own questions to meet you particular needs.

This manual is organized according to the five types of information that can be gained at the end of an educational event. These include information about:

- 1. Participant reactions
- 2. Teaching and facilitation
- 3. Outcomes
- 4. Future programming
- 5. Participant background

ALTERNATIVES TO END-OF-SESSION QUESTIONNAIRES

Using a questionnaire to gain evaluative feedback at the end of a session is a very common practice. People, however, may be tired of filling out questionnaires, or another method might be more appropriate given your purpose or participant characteristics. A questionnaire requires that the participants be able to read and write. This may be difficult for young children or for participants with low literacy or disabilities. There are a variety of ways to collect immediate feedback other than a written questionnaire. Consider what will most likely yield the results you seek. Some alternatives include:

- Observations of interactions, skill development or learning¹
- A group discussion at the end of the session guided by specific evaluation questions
- Personal interviews with participants
- Photographs or a videotape of the session or particular aspects of the event

Using an end-of-session questionnaire is a fast and easy way to collect data from a large number of people. As with any method it has certain advantages and disadvantages.

Advantages	Disadvantages
Allows people to remain anonymous	Inappropriate for young children, populations with low literacy
Provides written documentation of people's own perspectives	Participants are often tired and in a hurry to leave
Can reach a large number of people	Potential for positive bias since participants tend to respond to please the presenter
Convenient	Self-reports
Low cost	Requires careful question construction to obtain useful information

¹ See UW-Extension publication, Collecting Evaluation Data: Observational Techniques (G3658-5).

PLANNING YOUR END- OF-SESSION QUESTIONNAIRE

If you've decided to use an end-of-session questionnaire, do some upfront planning to ensure more useful results. Start with the planning steps for any evaluation (for further help see Extension Publication, *Planning a Program Evaluation* (G3658-1). Although these steps are ordered below, many should be thought about simultaneously.

1. Why are you doing an end-of-session evaluation?

Often, we pass out end-of-session questionnaires without much thought or real use in mind. What is your purpose and what do you hope to accomplish by asking participants for their feedback?

2. Who will use the information? How will they use it?

Is this evaluation your idea or is someone else asking you to evaluate? How will the information from the evaluation be used?

3. What do you (and others) want to know?

Take a few moments and write down three to five topics or questions that represent what you want to know about your educational event.

	"I would really like to know"
1.	
2.	
3.	
4.	
5.	

4. What specific questions will you ask?

Be more specific. Begin to list the questions you and others want answered. Do you want to know about people's reactions to the presentations, knowledge gains, satisfaction with the facility, what participants expect to do as a result of attending, etc.? Be clear and precise about what you want to know and how you will use the information. Differentiate between what would be nice to know and what you need to know.

5. How should the form be designed and formatted?

How long do you want it to be? How should the questions be ordered? Do you have a graphic or design to make the questionnaire more eye pleasing? Remember, the look of the questionnaire is critical.

6. Who will check the questionnaire?

Allow enough time in your planning to have someone else review your questionnaire. In good evaluation, we always pilot test our instruments and data collection procedures. At the minimum, ask a colleague or interested other to read and critique your questionnaire.

7. When will the form be used/distributed?

Will the form be included in the conference packet, placed on tables, handed out at the end of each subsection, at the end of the whole conference or when? Experience shows that you should allow time for filling out the questionnaire within the designated time frame of the program.

8. How will the data be managed and analyzed?

If you are expecting only a limited number of participants, you may hand tally the results. For larger numbers of participants, you may consider a computer spreadsheet program, data management software or a statistical package for data processing and analysis. Don't forget to make time for and think about interpretation. Words and numbers do not speak for themselves. You will want to answer the questions: What did we learn? What are the recommendations?

9. How will you use your results for program improvement and external reporting?

Plan for sharing and communicating your results. Participants, key stakeholders, program staff, colleagues, funders and others will be interested in the results. Reporting may be as simple as relating the results at a meeting or preparing a short report or media release.

10. Who is responsible for each task above? How much time will each take?

Will you do it all alone or will you have help? Sharing the tasks of evaluation with others spreads ownership, understanding and commitment and generally results in a better product.

Often we put together an end-of-session questionnaire hurriedly and at the last minute. With a little foresight and planning, you can obtain more useful information.

SUGGESTIONS AND TIPS

- Make the evaluation form easy to complete. Keep your questions brief, choose a font that is easy to read and leave plenty of white space on the form, so it does not appear cluttered.
- **Keep your audience in mind.** The questionnaire you use will depend on the audience age, literacy level, etc. Phrase the questions and format the questionnaire to match the characteristics of your audience.
- Cluster similar items to save space and time. For example:

Ratner than asking separate questions:	Cluster items into one question:
How would you rate the content?	How would you rate each of the following:
poorfairgoodexcellent 2. How would you rate the facility?	poor fair good excellent
poorfairgoodexcellent 3. How would you rate the teaching?	a. the content
poorfairgoodexcellent	c. the teaching

- Think about how to write the question. There are many different ways to phrase a question (see page 8). Decide what types of questions provide the information you want. Yes-No response, one best answer choice, rating, ranking, comparison, matching, list or open-ended questions are all possibilities. UWEX Cooperative Extension's *Questionnaire Design: Asking Questions with a Purpose* (G3658-2) reviews how to write questions in greater detail. Examples of different rating scales are found in Appendix 2.
- Consider cultural issues. When developing an end-of-session questionnaire for persons from different cultures, consider carefully the meaning of the words you use. Concepts may have different meaning even within the same ethnic group. Ensure that the structure of the questions and the response instructions are clear and understandable. To be on the safe side, ask a representative of the cultural community to review your questionnaire.
- **Keep the form short.** It is important to remember that participants are often tired at the end of an educational event, so questionnaires need to be focused and concise. Work towards obtaining the most information that can be provided in the least amount of time. Be clear about your purpose and limit data collection to the information you are sure to use.
- Provide time for participants to complete the evaluation forms. To get feedback from most participants, schedule time for them to fill out the questionnaire as part of your educational event. You may wish to save the final announcements for the event until after participants complete the questionnaire.
- Guard against a positive bias. Often participants give high marks to please the instructor. Stress to participants that you are interested in both the strengths and weaknesses of the session. Include a question that asks about weaknesses or ways to improve.

TYPES OF QUESTIONS					
Questions can be open or close-ended. Within close-ended questions, various possibilities exist. Spend some time making sure the wording of your question solicits the information you want.					
OPEN-ENDED QUESTION:					
What did you find most useful about today's workshop?					
CLOSE-ENDED QUESTIONS:					
1. YES – NO question: Did you find today's workshop useful? a No b Yes					
2. One best answer question: Of the following topics, which ONE was most useful to you? (Check ONE please.) a physical punishment b setting limits c consequences d listening e anger f challenging behaviors					
3. Check all that apply question: Which of the following topics were most useful to you? (Check all that apply.) a physical punishment b setting limits c consequences d listening e anger f challenging behaviors					
4. Rating question To what extent did you find today's workshop useful? a not useful b somewhat useful c very useful d extremely useful					
5. Ranking question Of the topics we covered today, please rank their usefulness to you in order of 1, 2, 3, 4, 5, 6 where, 1 = most useful and 6 = least useful. a physical punishment b setting limits c consequences d listening e anger f challenging behaviors					

- **Protect the anonymity of the respondent.** Signatures on end-of-session evaluation forms are usually optional. Forms can be collected on an empty desk or in a box by the door rather than returned directly to you.
- Use the feedback you receive. Making changes based on the feedback you receive shows participants that you value their input. Explain how you plan to use the information as you distribute the forms.
- Proof read, edit and pilot test.

CAUTION

End-of-session evaluation questionnaires can provide valuable information on different aspects of an educational event useful in program planning, program improvement and accountability. Still, recognize them for what they are: self-reports, providing participants' perceptions at one point in time — immediately after an event. They do not test participants or verify outcomes or document actual learning or changes in behavior. Participant perceptions provide valuable information, but what people believe they learn and what they actually learn may be different. In fact, there is no definite relationship between what people feel they learn and what they actually learn (Dixon, 1990; LeRouzic and Cusick, 1998). Consequently, exercise caution when using end-of-session questionnaires to document change. Think about combining end-of-session evaluation forms with other types of data collection to provide a more complete accounting of your educational event and its benefits.

KINDS OF INFORMATION: WHAT DO YOU WANT TO KNOW?

In the past we often used end-of-session questionnaires as a "happiness index" to find out how satisfied people were with the facility, the instruction, the content – how much people liked us and our program. Increasingly, we see that with careful thought about what we'd like to know and specific wording of our questions, we can collect more useful information for program improvement and accountability purposes.

There are five different kinds of information that end-of-session questionnaires can provide. Do you want to know about:

1. Participant Reactions (pages 12-21)

How do participants feel about the program? What did they like? What didn't they like? Participant reactions are a measure of satisfaction. They tell you how pleased people are, if they are likely to attend a future session or if they are likely to recommend the session to others. Reactions are not outcomes. They do not tell you what people learned or how people have benefited. But, positive outcomes are more likely if people react positively and are satisfied.

2. Teaching and Facilitation (pages 22-25)

How you are viewed as a teacher or facilitator is often a high priority. Or, you may have invited others to teach or facilitate the session. Participant feedback can help you identify strengths, weaknesses and areas for improvement. This is how you develop professionally as an educator. It also helps you determine what you will do differently next time.

3. Outcomes (pages 26-36)

What are the results of the educational event? What are the benefits for the participants and others? While you may not be able to actually measure knowledge gains, skill development, changes in attitudes, motivations or opinions, you can ask questions about what people **think** they gained and **intend** to do as a result of the educational effort. There also may be unintended or unexpected outcomes you'll want to ask about. Be sure that the outcomes you ask about are possible given the scope and length of the educational event.

4. Future Programming (pages 37-40)

At the end of a session is an opportune time to ask participants about any additional educational needs or interests that they might have. This information can help you plan future programs or redirect current efforts.

5. Participant Background (pages 41-45)

You may be interested in gathering information about participants' backgrounds to determine who is attending and who you may be missing. Knowing relevant characteristics of the

participants (such as their age, skill level, prior knowledge) can also help you understand their other responses on the questionnaire.

This manual provides sample questions for each of these five kinds of information. Typically end-of-session questionnaires include questions from several of these areas. The sample questions that follow are not meant to be complete, perfect or exhaustive. Change them or add others to meet your particular information needs.

1. PARTICIPANT REACTIONS

End-of-session questionnaires generally ask about participant's reactions – what people thought about the program, including content, materials, facilities and administration. Were participants pleased with the session? Participant reaction is important to consider when redesigning or continuing your educational effort. Reactions do not represent outcomes but they are a major input for improving programs. Your questions might focus on people's reactions relative to the session's value, usefulness, quality, applicability, appropriateness, relevance or how well it met expectations. The following lists indicate a variety of reactions that might be of interest. Reactions to the presenters are covered in a separate section, *Teaching and Facilitation*.

- A. Reactions to the session including its content and delivery such as its
 - Goals and objectives
 - Content and information provided
 - Learning environment
 - Activities
 - Components of the event
 - Choice of sessions
 - Materials
 - Exhibits, demonstrations
 - Teaching methods
 - Instructional aids
- B. Reactions to the administration, facilities and logistics
 - Pre-event information
 - Registration
 - Communications
 - Length, location, time
 - Food
 - Costs

SAMPLE QUESTIONS

A. Reactions to the Session

1. How would you rate the conference overall? (Circle one.)

1 = Unsatisfactory 2 = OK 3 = Good 4 = Excellent

2. To what extent was attending this training worth your time? (Circle one.)

Not at All Great Deal 1 2 3 4 5 6

3.	Please r	ate th	e work	shop on t	he follo	wing item	s: (0	Circ	le c	ne	nun	nbei	r for each item.)
	a. b. c. d. e. f. g.	useful excellent appropria stimulatii excellent appropria	ate ng t	1 1	2	3 3 3 3	4 4 4 4	5 5 5 5 5	of little use poor inappropriate boring poor inappropriate of little help				
4.	Overall,	, was	this me	eting use	eful to yo	ou?							
	a. Yes b. No												
	OR												
	Overall,	to wh	nat exte	nt was th	is meet	ing useful	l to y	you	? (Circ	ele c	one.)
	Not Use	eful	2	3	4	5	Ver	y Us	sefu	ıl			
5.	To what work?			ou think y	ou can	apply the	info	rma	atio	n p	rese	ente	d today to your
	Not at 1	t All	2	3	4	5	A G	Grea 6	t De	eal			
6.	Of the i	nform	ation p	resented	today, h	ow much	is u	usal	ble	to y	ou?	? (C	heck one.)
	a 0 b 2 c 4 d 6 e 8	1-40% 1-60% 1-80%	,) ,										
7.	Should t	this w	orksho	p be repe	eated? (Circle one	e.)						
	a. Yes b. No c. It dep Pleas		lain:										

. Would you reco	mmend	I this sat	ellite pro	gram t	to others? (Circle one.)
a. Yes b. No c. Uncertain					
c. Uncertain					
OR					
Definitely Yes					Definitely No
1	2	3	4	5	6
. What would you	estima	ate as th	e dollar v	alue o	f this conference? (Circle or
a. Less than \$25	5				
b. \$26 - \$50	•				
c. \$51 - \$75					
d. \$76 - \$100					
e. \$101 - \$300					
f. \$301 - \$500					
g. Other, please	specify:				
b. dissatisfied c. not motivated	1	2 2	3	4 4	stimulated satisfied motivated
c. not motivated	1	2 2	3	4 4	motivated focused
1.For my experier	ice leve	el, the w	orkshop	was:	
a too basi			0.5		a too easy
b about rig			OR		b just right
c too adva	inced				c too difficult
OR					OR
a too elem	entary				a too simple
b about rig			OR		b just right
c too techi	nical				c too complicated
2.Overall the clini	c:				
a was a go	ood lear	rnina evr	nerience		
b was a m				nce	
c. was a m					ontinued

13. Please evaluate this session by circling a number on the following scale: (Circle one number for each.)

•	Poor				Excellent
a. general overall impression	1	2	3	4	5
b. usefulness of subject matter for me					
professionally	1	2	3	4	5
c. usefulness of subject matter for me					
personally	1	2	3	4	5

1	4	What	was	most	usaful	about	tho	demons	stration	?
	4.	vviial	. was	IIIOSI	useiui	awoun	IIIE	OCHION:	SHAHOH	•

- 15. What was least useful about the demonstration?
- 16. What I found most useful was:
- 17. What three things from this conference were most helpful to you?

a.	
b.	
c	

- 18. What was the single best thing about the day?
- 19. What were the weaknesses of this workshop?
- 20. What were the strong points of this training?
- 21. Please comment on the quality of this workshop:
- 22. The things that could have been omitted from the day are:
- 23. What I was looking for from this workshop but didn't get:
- 24. Have you attended similar workshops provided by others? (Circle one.)
 - a. Yes
 - b. No

If YES, how do they compare to this workshop provided by Extension?

25.	Were you satisfied with the field day? (Circle one.)
	a. Yes	
	b. No	

Why or why not?

- 26. How can the conference be improved?
- 27. What would make the workshop more useful?
- 28. My general comments and suggestions for improving this conference are:
- 29. What part of the conference did you like most?
- 30. What part of the conference did you like least?
- 31. Six presentations were made at today's seminar. Circle the response that best reflects how well you felt each presentation met your needs.

	[List title of presentations.]	Not Well	Somewhat	Very Well	Did Not Attend
a		1	2	3	9
b		1	2	3	9
C		1	2	3	9
d		1	2	3	9
e		1	2	3	9
f		1	2	3	9

32. Please evaluate the presentations made today. (Circle one number for each.)

	[List title of presentations.]	Poor								Е	xcelle	nt
a		1	2	3	4	5	6	7	8	9	10	
b		1	2	3	4	5	6	7	8	9	10	
C		1	2	3	4	5	6	7	8	9	10	
d		1	2	3	4	5	6	7	8	9	10	

33. Please give your reaction to the following sessions:

[Title of session]	Poor	Fair	Good	Excellent	Not Applicable
a. Presentation	1	2	3	4	NA
b. Usefulness to my work	1	2	3	4	NA
c. Overall rating	1	2	3	4	NA
d. Comments:					
[Title of session]	Poor	Fair	Good	Excellent	Not Applicable
a. Presentation	1	2	3	4	NA
b. Usefulness to my work	1	2	3	4	NA
c. Overall Rating	1	2	3	4	NA
d Comments:					

34. How valuable did you find each exhibit?

	[Title of exhibits]	Not at All Valuable				Very Valuable	Didn't Visit
a		1	2	3	4	5	NA
b		1	2	3	4	5	NA
C		1	2	3	4	5	NA

35. From the following list of topics that were covered today, please indicate how useful you found each to be. (Please circle one number for each topic.)

	[List topics.]	Not	Slightly	Moderately	Very
		Useful	Useful	Useful	Useful
a		1	2	3	4
b		1	2	3	4
C		1	2	3	4
d.		1	2	3	4

36. How well did the information presented meet your expectations? (Please circle one number.)

A Little A Great Deal 1 2 3 4 5 6

37. What wasn't covered in today's workshop that you expected?

ΑM	DEVELOPMENT AND EVALUATION						
38.	Please rate the workshop content on the space.)	iollowi	ng. (Pl	ace an >	(in the	appropriate	
	,	Very Poor	Fair	Good	Very Good	Excellent	
	 a. Met my needs b. Suitable to my level of experience c. Interesting d. Up-to-date and forward-looking e. Consistent with description f. Understandable g. Logically organized h. Included sufficient examples i. Overall rating of workshop content 						
39.	Please indicate your agreement with the f circling your answer. 1=Strongly Disagree; 4=Agree; 5=Strongly Agree		_			•	,
	The educational materials and content	Stron Disag				Strongly Agree	
	The educational materials and content						
	 a. Helped me better understand the issue b. Provided information relevant to my work c. Were based on current, up-to-date information d. Addressed the topic identified in the title e. Were well organized f. Were easy to understand 	ation 1 1 1 1	2 2 2 2 2 2 2	3 3 3 3 3 3	4 4 4 4 4 4	5 5 5 5 5	
	g. Will be of great immediate use to me	1	2	. 9	1	<u>_</u>	

40. How useful do you think the project manual will be?

Of Little Use		Of Great Use		
1	2	3	4	5

41. Please indicate your evaluation of the workshop.

	Poor	Fair	Good	Excellent
a. Was organized and followed a logical order	1	2	3	4
b. Provided information I can use in my work	1	2	3	4
c. Will be helpful in my career	1	2	3	4
d. Expanded my thinking about the topic	1	2	3	4
e. Related information to client needs	1	2	3	4
f. Provided material I can use with clients	1	2	3	4

42. Please rate the workbook on the following:

	Poor	Fair	Good	Excellent
a. Easy to read				
b. Easy to understand				
c. Provides information you can use				
d. Effectively integrates information on				
pesticides and microbial contamination				

43. What reactions do you have to the methods that were used today? (Check one for each category.)

	Poor	Fair	Good	Excellent
a. Readings selected				
b. Lectures				
c. Visual aids, transparencies				
d. Videotapes				
e. Group activities				
f. Group discussion				
g. Consultation on problems				

44.	Please c	heck the	TWO to	pics that	were	most	useful	to	you?
-----	----------	----------	--------	-----------	------	------	--------	----	------

	[List topics.]
a.	
b.	
C.	
d.	

B. Reactions to Administration, Facilities and Logistics

You may be interested in people's reactions to the location of the event, the time, accommodations and food, as well other logistical details.

1.	was	your s	tay sa	tistact	tory?	(Circ	le one.)
----	-----	--------	--------	---------	-------	-------	----------

a.	Yes	
b.	No	
c.	Please explain:	

2.	Was the time of the meeting convenient? (Circle one.)
	a. Yesb. Noc. If no, a more appropriate time would be:
3.	Was the date [specify the date] of the training convenient? (Circle one.)
	a. Yes b. No
4.	Was the location of the meeting convenient? (Circle one.)
	a. Yesb. Noc. If no, please suggest another location
5.	Were you able to get to the meeting location easily? (Circle one.)
	a. Yes b. No
6.	How far did you travel to get to the meeting? miles.
7.	How would you rate the:
	a. Snacks at break b. Meals c. Lodging d. Parking f. Service Comments: Poor Fair Good Excellent Fair Good Excellent Good Excellent Fair Good Excellent Good Excellent Fair Good Excellent Good Excellent
8.	Do you think the registration fee was: (Circle one.)
	a. Too high?b. Just right?c. Too low?

9. How would you rate the satellite conference on the following? (Circle one number for each.

Low					
a. Comfortable setting for learning	1	2	3	4	5
b. Good audio reception	1	2	3	4	5
c. Good video reception	1	2	3	4	5
d. Adequate time for interaction	1	2	3	4	5

10. Circle one answer for each question.

a. Could you see?	Yes	No
b. Could you hear?	Yes	No
c. Was the room temperature comfortable?	Yes	No
d. Were the coffee/stretch breaks convenient?	Yes	No

e. Comments:

11. What aspects about the conference logistics (i.e. food, evening activities, room layout) could be improved?

12. How would you rate the following:

L	ess thai	า			Excellent	
A	Adequate	9				
a. Preprogram communications	1	2	3	4	5	
b. Registration	1	2	3	4	5	
c. Location of conference	1	2	3	4	5	
d. Conference facility	1	2	3	4	5	
e. Meeting rooms	1	2	3	4	5	
f. Convenient time	1	2	3	4	5	

2. TEACHING AND FACILITATION

You may be interested in your own performance or that of others who are presenting or leading the event. Knowing how well you are teaching (transmitting information) and facilitating (assisting the learning process or guiding a group) helps you improve professionally and identify changes that may be needed in future programs. Increasingly, Extension educators serve as facilitators of groups rather than teachers per se, so your questions need to be worded appropriately.

There are numerous aspects of teaching and facilitation that you might wish to include in your questions including:

- Overall effectiveness
- Knowledge of subject matter
- Ability to facilitate learning
- Ability to facilitate group process
- Preparation and organization
- Attitude toward learners
- Ability to engage learners
- Use of visuals and teaching materials
- Communications
- Use of time
- Approachability
- Answering questions
- Adjustments to interests, level of participants

SAMPLE QUESTIONS

1. To what extent did the instructor:

	Not				Great
	Much				Deal
	1	2	3	4	5
	1	2	3	4	5
letely	1	2	3	4	5
e and experience	1	2	3	4	5
es	1	2	3	4	5
ns	1	2	3	4	5
ırn	1	2	3	4	5
ctures and exercises	1	2	3	4	5
	e and experience es ns rn	Much 1 1 letely 1 e and experience 1 es 1 ns 1	Much 1 2 1 2 letely 1 2 e and experience 1 2 es 1 2 ns 1 2	Much 1 2 3 1 2 3 1 2 3 letely 1 2 3 e and experience 1 2 3 es 1 2 3 ns 1 2 3 rn 1 2 3	Much 1 2 3 4 1 2 3 4 1 2 3 4 letely 1 2 3 4 e and experience 1 2 3 4 es 1 2 3 4 ns 1 2 3 4 rm 1 2 3 4

2. To what extent do you agree or disagree with the following statements:

The instructor	Strongly Disagree				Strongly Agree
a. Was well prepared	1	2	3	4	5
b. Was interested in helping me learn	1	2	3	4	5
c. Stimulated my desire to learn	1	2	3	4	5
d. Answered questions clearly	1	2	3	4	5
e. Related program content to real-life situations	1	2	3	4	5
f. Gave clear explanations	1	2	3	4	5
g. Held my attention	1	2	3	4	5
h. Presented information that will help me	1	2	3	4	5

3. Please give your frank and honest reactions. (Place one number in each cell where 1=Poor, 2=Fair, 3=Good, 4=Very Good, 5=Excellent.)

Leader	Knowledge of Subject	Presentation	Discussion	Use of Audio Visuals	Overall
a. Warren Peace					
b. Guy Wire					
c. Natalie Dressed					
d. Pete Moss					

4. Please give your evaluation of the speakers by circling the appropriate letter:

(E=Excellent, G=Good, F=Fair, P=Poor)

Speaker	Content of Presentation	Speaking Ability	Course Materials
a. Warren Peace b. Guy Wire	EGFP EGFP	E G F P E G F P	E G F P $E G F P$
c. Natalie Dressed		E G F P	EGFP
d. Pete Moss	EGFP	EGFP	EGFP

5. Please put an X along the line between the pairs of choices to give your opinion about the instructor.

a. Muddled Organized
b. Boring Interesting
c. Inhibiting Motivating
d. Discouraging Encouraging
e. Unresponsive Responsive

6. Please circle one number that most accurately indicates your evaluation of the presenter.

	PREPARATION						
1 Much planning evident	2	3	4	5 Little planning evident			
	NOWLEDGE O	F SUBJECT MA	TTER	evidem			
1 Meaning always clear	2	3	4 M	5 eaning often obscure			
KE	KEEPING THE SESSION INTERESTING						
1 Participants actively engaged	2	3	4	5 Considerable boredom			
engageu	EXPL	ANATIONS		boredom			
1 Very clear	2	3	4	5 Confusing			
	ANSWER	ING QUESTION	s				
1 Answers them fully and directly	2	3	4	5 Does not answer them			
LEVEL OF PRESENTATION							
1 Easily followed	2	3	4	5 Too advanced			

7.	What do	you think are the instructo	or's strengths?
----	---------	-----------------------------	-----------------

- 8. How could the instructor improve?
- 9. How well did the agent facilitate the group process? (Circle one.)

Not Well				Very Well
1	2	3	4	5

10. To what extent did the educator help the group:

	Not Much)		Α	Great De	eal
a. Build consensus	1	2	3	4	5	
b. Establish priorities	1	2	3	4	5	
c. Gain necessary information	1	2	3	4	5	
d. Listen to each other	1	2	3	4	5	
e. Keep to the agenda	1	2	3	4	5	

11. Would you recommend this instructor to others?

Yes,				No, Suggest You
Definitely				Find Someone Else
1	2	3	4	5

3. OUTCOMES

Outcomes are the results of the educational event and the benefits people gain from participating. As you write your questions, consider what type of outcomes you would expect participants to be able to reflect on at the end of the event. Consider the objectives of the event, how it is implemented, the length of the session, what it covers, the experience of program participants, etc. Keep your questions realistic and consistent with the scope, content and audience of the event.

As self-reports, end-of-session evaluation questionnaires reflect people's perceptions of outcomes. Individual perceptions are real and valuable, but they may or may not reflect actual learning or change.

There are a variety of outcomes you might be interested in, such as

- Overall benefits that participants attribute to the session
- Commitment to action
- Perceived changes in motivation, confidence or abilities
- Perceived changes in knowledge and skills
- Perceived changes in attitudes, beliefs and opinions
- Intended changes
- Perceptions of before and after differences

Sara Steele (1995) cautions that if we think only in terms of **new** knowledge gains, we may be missing a variety of important outcomes. She offers a list of other knowledge gains and kinds of results your program may be fostering such as:

- Expanded understanding
- Increased insights into what was already known
- Clarified things that had been learned
- Refocused attention to a topic
- Helped integrate information that had been heard
- Helped in understanding one's own beliefs
- Challenged thinking
- Stimulated interest to learn more
- Stimulated new thinking
- Provided ammunition to use in an argument
- Triggered ideas
- Helped in applying information
- Encouraged action
- Helped in self understanding

SAMPLE QUESTIONS

A. Overall Benefits

End-of-session questionnaires often include a question about the general benefit or value of the event.

	a Answers to my questions				
	b Resource materials I can use				
	c Ideas I can try immediately				
	d Names of other people to con-	tact			
	e Nothing new				
	f. Anything else?				
2.	How much of the content of this work	shop did y	ou alre	ady knov	w? (Check one.)
	a. Nothing				
	b. A little				
	c. Quite a bit				
	d. Most of it				
3.	What percentage of the content covere	d today did	l you <u>alr</u>	eady kno	ow? (Check one.)
	a 0-25%				
	b 26-50%				
	c 51-75%				
	d 76 100%				
	d 76-100%				
ı.	d 76-100% Which of the following benefits do you	u attribute	to this	clinic?	
ı.	d 76-100%	u attribute	to this	clinic?	
l.	d 76-100% Which of the following benefits do yo [List benefits.] a		Yes	No	
l.	d 76-100% Which of the following benefits do you [List benefits.] a b		Yes Yes	No No	
1.	d 76-100% Which of the following benefits do yo [List benefits.] a		Yes	No	
i. 5.	d 76-100% Which of the following benefits do you [List benefits.] a b c.		Yes Yes Yes	No No	
	d 76-100% Which of the following benefits do you [List benefits.] a b c.		Yes Yes Yes	No No	A Great Deal

- 7. Indicate one or two main things you learned or gained today.
- 8. The most important thing I learned today was:
- 9. What did you gain from this experience that was unexpected?
- 10. What new things did you learn today?
- 11. The conference was designed to build skills in [....]. To what extent did the conference help you to: (Circle one number for each item.)

	[List specific skills.]	Not at All	Very Little	Somewhat	Very Much
a		_ 1	2	3	4
b _		. 1	2	3	4
C		. 1	2	3	4
d		1	2	3	4

B. Commitment to Action

People who make a public commitment to action are more apt to follow through than those who do not make such a commitment. One technique is to ask participants to express what they intend to do based on the learning experience before they leave the session. They may simply list one thing they intend to do on a paper or note card. If the instructor keeps a copy, follow-up is possible.

1. What one or two ideas from this workshop will you try?

OR

Do you intend to try any of the techniques discussed today?

- a. Yes____ b. No ____
- c. If Yes, what do you plan to try?

2. How do you plan to use the information from the conference?

3.	What will you do differently as a result of this demonstration?
	OR
	Do you intend to do anything differently as a result of today's workshop?
	a. Yes
	b. No c. If Yes, please describe:
	c. Il Tes, please describe.
4.	What one thing will you try as a result of this clinic?
5.	What materials or information do you intend to use?
	[List materials and information.]
	a Yes No Not applicable to me
	b Yes No Not applicable to me
	c Yes No Not applicable to me
6.	Which of the following will you consider doing as a result of this workshop: [List actions.] a Yes No Not applicable to me b Yes No Not applicable to me c Yes No Not applicable to me
7.	How do you expect to use the notebook of resource materials?
C.	Perceived Changes in Motivation, Confidence or Abilities
1.	To what extent do you feel more able to [] as a result of this training:
	Not at All Great Extent
	1 2 3 4 5
2.	As a result of this course, I feel that I can:

_	e ga eel :								_		art	in	a١	NO	rk-
	s							_							
r - -	or 		-	<i>F</i>	air ——		G(ood 	' 1	Ех(celle	ent - - -			N
, pe	ny p	pe	ee	ers	s he	elp	ec	d to	re	ein	foi	rce	m	у	
5		5	5				(6				Agı	ong ree 7	-	
d to ne e	sed the this tend	to e e	o ev kı	as en	sess nt. V	s k W:	cnc ith	owle	a	ba	sel	ine	, co	om	paı
_	ugh tion								ioı	ns	an	ıd i	n v	vha	at
le	able	9				٨	Ve	ed N	Ио	re	He	elp			
_ _ _						_						_			
_ _ _						_									

2. As a result of this conference, to what extent do you understand the following topics? (Circle one number for each topic.)

		Not	Understand	Understand	Already
	[List topics.]	Very Well	Most	Very Well	Knew
a		1	2	3	4
b		1	2	3	4
C		1	2	3	4
d.		1	2	3	4

3. Please circle the answer that best describes how much you learned today about each topic listed.

	[List topics.]				
a		_ Nothing	A Little Bit	Quite a Bit	A Lot
b		_ Nothing	A Little Bit	Quite a Bit	A Lot
C		_ Nothing	A Little Bit	Quite a Bit	A Lot
d		_ Nothing	A Little Bit	Quite a Bit	A Lot

4. To what extent do you feel you've gained new skills in:

	[List skill areas.]	Not Much				A Lot
a		1	2	3	4	5
b		1	2	3	4	5
C		1	2	3	4	5
d		1	2	3	4	5

5. To what extent has this workshop helped prepare you to do the following: (Circle one number for each skill area.)

		No	Somewhat	Much Better	More
	[List skill areas.]	Difference	Better Prepared	Prepared	Confused
a		1	2	3	4
b		1	2	3	4
c		1	2	3	4

6. What did you learn at this field day? (Circle one number for each item.)

	Gave Me New	Reinforced What	Nothing
[List expected knowledge changes.]	Information	I Already Knew	New
			Presented
a. Ways to prevent groundwater pollution	1	2	3
b. Signs and symptoms of pesticide poisoning	1	2	3
c. The effects of pesticides on people	1	2	3

	of participating in the state of the state o	-	e Nor D	isagree;	D = D	isagree	;
OD = Ollong	ny Disagree		CΛ	Α	N/	D	er.
	new skills that will he ed my knowledge abo			A			
	e aware of []	,					
d. I am stimu	ulated to learn more						
. To what ext	ent do you think yo	ou learned about	the foll	owing t	opics:		
	[List topics.]	Little		Some		A Lo	t
a			2	3	4	5	
		1	2	3 3	4	5	
			2	3 3	4 4	5 5	
u		·	_	Ü	•	Ū	
Have you c	ed Changes in hanged your attitud Circle one.)				-		
Have you c this trial? (a. Yes b. No	hanged your attitud				-		
Have you conthis trial? (a. Yes b. No c. If yes, ple	hanged your attitud Circle one.) ease specify: of today's session, p	le about water c	onsump	otion in	any wa	ay as a⊣	resu
Have you conthis trial? (a. Yes b. No c. If yes, ple As a result of (Circle one)	hanged your attitud Circle one.) ease specify: of today's session, p	le about water co	onsump	otion in	any wa	ay as a⊣	resu
. Have you conthis trial? (a. Yes b. No c. If yes, ple . As a result of (Circle one "I wish this of b. Mildly aging c. Neither aging.	hanged your attitud Circle one.) ease specify: of today's session, p number.) community had more agree ree gree nor disagree	le about water co	onsump	otion in	any wa	ay as a⊣	resu
Have you countries this trial? (a. Yes b. No c. If yes, ple As a result of (Circle one "I wish this of b. Mildly agi	hanged your attitud Circle one.) ease specify: of today's session, p number.) community had more agree agree agree nor disagree agree	le about water co	onsump	otion in	any wa	ay as a⊣	resu
As a result of (Circle one "I wish this of a. Strongly a b. Mildly agric. Neither a. Strongly of e. Strongly of e. Strongly of a. Strongly of	hanged your attitud Circle one.) ease specify: of today's session, p number.) community had more agree agree agree nor disagree agree	le about water co	onsump	otion in	any wa	ay as a⊣	resu
As a result of (Circle one "I wish this of D. Mildly agric. Neither agric. Strongly of D. Strongly of D. Mildly dise. Strongly of D. Strongly	hanged your attitud Circle one.) ease specify: of today's session, ponumber.) community had more agree agree gree nor disagree agree disagree	le about water co	onsump	otion in	any wa	ay as a⊣	ater nge

	changed about:					
	[List topics.]		Not at All	Not Much	Somewhat	A Great Deal
	a					
	b					
5.	Are you thinking differently ab	out [] as	s a result o	of today's v	vorkshop?	
	a. Yesb. Noc. Please comment if you care to	o:				
6.	Please indicate how your opini in this program.	on has ch	anged as	a result of	participating	9
	une program		Less		Moderately	
		Change	Positive	More		
	[List practices.]				Positive	
	a b					
	C					
	d					
	<i>e</i>					
F.	Intended Changes					
her	anges in behaviors and practices or home, work or life. In an end-of- pehavior and practices that particip	session eva	aluation for	rm, you can		
1.	Do you plan to [list the practice	e or chang	e expecte	d]? (Circle	one.)	
	a. Yes b. No c. Don't know	_				

d. If yes, how? Please specify:

2. What is one thing you intend to do as a result of this conference?

4. As a result of today's workshop, to what extent do you feel that your attitude has

		Used Before	Intend	Don't Intend
	[List practices.]		to Use	to Use
a				
b				
d			- -	
e				
Please ch	neck the appropriate	answer for the ch	anges we talke	ed about today.
		Currently	Expect to	Not Sure
	[List change.]	Doing This	Make This Cha	nge About Doing
b.				
c				
d				
e During th	e course of this mee			
e During th	ne course of this mee ealthier diet. Which intend to do.)	of the following d		
e th have a he that you a	ne course of this mee ealthier diet. Which intend to do.) [List di	of the following d	o you expect to	
e th have a he that you a b b.	ne course of this mee ealthier diet. Which intend to do.) [List di	of the following d	o you expect to	
e th have a he that you a b c	ne course of this mee ealthier diet. Which intend to do.) [List di	of the following d	o you expect to	
e th have a he that you a b c d d.	ne course of this mee ealthier diet. Which intend to do.) [List di	of the following d	o you expect to	
e a b c e e	ne course of this mee ealthier diet. Which intend to do.) [List di	of the following d	o you expect to	o do? (Check tho
e a b c e e	ne course of this mee ealthier diet. Which intend to do.) [List di	of the following d	o you expect to	o do? (Check tho
e e a e e As a resu (Check of a a a a e a	e course of this mee ealthier diet. Which intend to do.) [List diet] Ilt of this training, do ne space per item.)	of the following d	o you expect to	o do? (Check those
e	e course of this mee ealthier diet. Which intend to do.) [List diet.] [List diet.]	of the following d	o you expect to	o do? (Check those
e e a e As a resu (Check of a	e course of this mee ealthier diet. Which intend to do.) [List diet] [List diet] [List diet] [List diet] [List areas.]	of the following d	o you expect to	o do? (Check those

7. As a result of this conference, what changes do you anticipate?

	I plan to:	Stop or	Decrease	No Change	Start or
	[List items.]	Discontinue			Increase
a.					
b.					
C.					
d.					
e.					

8. As you think about the next three months, circle the number which best describes the degree to which you WILL ENGAGE in the following practices. (1= Almost never, 2=Seldom, 3= About half the time, 4=Often, 5=Almost always)

	[List practices.]	In the next three months, will I?					
a		1	2	3	4	5	
b		1	2	3	4	5	
c		1	2	3	4	5	
d		1	2	3	4	5	
e		1	2	3	4	5	

G. Perceptions of Before and After Differences

Comparison adds strength to the assessment of outcomes. One way to do this in an end-of-session evaluation is to ask participants to compare their knowledge or ability at the beginning of the event with that at the end. This evaluation design, called the retrospective or post-then-pre design, has certain advantages over the traditional pre-post test design (see Rockwell, 1989 and Le Rousic and Cusick, 1998.). It is a popular and valid questionnaire design (see Appendix 1).

1. Please CIRCLE one rating for both BEFORE and AFTER the meeting:

	Low		Moderate	9	High
(1) I understood the value of strategic thinking a. Before the meeting?	1	2	3	4	5
b. After the meeting?	1	2	3	4	5
(2) I knew how to write a mission statement					
a. Before the meeting?	1	2	3	4	5
b. After the meeting?	1	2	3	4	5
(3) I could perform a SWOT analysis					
a. Before the meeting?	1	2	3	4	5
b. After the meeting?	1	2	3	4	5

2. Circle the appropriate number to indicate your degree of understanding of the listed topics BEFORE the training and AFTER the training.

		My understanding							
		Before training				After training			
[List topics.]	Very Little	Some	Quite a Bit	A Lot	Very Little	Some	Quite a Bit	A Lot	
a b c d	1 1 1	2 2 2 2	3 3 3 3	4 4 4 4	1 1 1 1	2 2 2 2	3 3 3 3	4 4 4 4	

- 3. The expected outcomes for this training are listed in the left column. For each outcome please:
 - Write a "B" on the scale to show your level of achievement when you $\underline{\mathbf{B}}$ egan the training today.
 - Write an "N" on the same scale to indicate your level of achievement Now.

Expected Outcomes Achievement Scale										
a. Participant will increase knowledge about	10	20	30	40	50	60	70	80	90	100
b. Participant will increase ability to	10	20	30	40	50	60	70	80	90	100
c. Participant will gain confidence in	10	20	30	40	50	60	70	80	90	100
d	10	20	30	40	50	60	70	80	90	100
e	10	20	30	40	50	60	70	80	90	100

4. FUTURE PROGRAMMING

End-of-session questionnaires provide an opportunity to hear from participants about what their additional educational needs are, what preferences they have, how they best learn or would like to learn. This information is helpful in planning future programs or modifying existing efforts. Remember, though, that you are only receiving input from the people who came to the event, not all potential participants.

SAMPLE QUESTIONS

A. Needs Related to the Current Session

What do participants feel they still need to know about the topic at hand? In what areas do they feel they could use more practice? What is the best way to provide this additional programming? If you collect this information, it is important to respond to participant feedback. This shows that you take their opinions seriously.

- 1. Would you like more information on any topic we covered today?
 - a. Yes
 - b. No
 - c. If yes, please list your questions or topics.
- 2. What would you like covered that wasn't covered today?
- 3. What kind of follow-up on today's workshop do you think would be helpful?
- 4. What assistance do you need in order to put into practice the ideas covered in this video conference?
- 5. Where do we go from here?
- 6. What additional information do you feel you need?
- 7. Do you have any suggestions that might help the group continue its learning?
- 8. Are there any topics you feel should be added to this session?

B. Topics for Future Sessions

1.	What would you like to see addressed at a future field day? (Check all that interest
	you.) OR (Please check TWO that interest you the most.) [List potential topics.]
	a
2.	Please recommend topics and potential speakers for future training.
3.	What topics would be of interest to you in future workshops?
4.	Please add any recommendations or changes you suggest.
C.	Other Planning Information
1.	In preparation for our next session, we'd like to get some idea of what problems people are having related to []. Please describe briefly some issues or problems you'd like addressed.
2.	In planning for our next workshop, it is helpful to know what people are currently doing. Please check any items in the list below that you currently do.
	[List activities.] a b c d.

3.	Which of the following an upcoming meeting	-		t important for us to	address at
	[List iss	-			
	b				
	C				
	d e				
	f				
4.	How do you think we n	night get more	people involve	d in these meetings	?
5.	What method of delive	ry do you pref	er? (Check all t	hat apply.)	
	a Small group dis	cussion			
	c Large group dis	cussion			
	d Panel discussion	n			
	e. Other:				
6.	How do you learn the b	pest?			
7.	Which of the following	techniques h	elp you learn th	e best? (Check all ti	nat apply.)
	a Small group dis	cussion			
	b Lecture c Role playing				
	d Individual work				
	e Computer assis				
	f Video taped exa g Sharing by part				
	h Other				
8.	To what extent did the	following influ	ience your atter	nding this conference	e:
		Strongly Influenced	Influenced	Did Not Influence	
	a. Content				
	b. Location c. Length of program				
	d. Price				
	e. Speaker(s)			<u>—</u>	
	f. Sponsor				
	•				
	g. Other:				

9.	Please rank order the following factors to show how they affected your decision to attend this conference. (Place a 1 next to the most important factor, a 2 next to the second most important factor to 6=least important.)
	a Subject
	b Speakers
	c Recommendation
	d Price
	e Location
	f Time of year
10	. How far would you travel to attend another clinic like this one?
	a 0 - 20 miles
	b 21 - 40 miles
	c 41 - 60 miles
	d > 60 miles
11.	. How would you recommend that we advertise this event?
12	. How often should this event be held?
	a yearly
	b every 2 years
	c every 4 years
	d other
13	. What time and day of the week are the most convenient meeting times for you?
	a. Time
	b. Day of week

5. PARTICIPANT BACKGROUND

Participant background information helps you know who is attending your event. By asking about a few key characteristics you can better describe who you are reaching with your educational effort. And, it helps you know which people you are not reaching. Who did you want to participate? Participant background information helps you see if you reached the intended audience.

Also, you may wish to include a few items that will help explain participant responses to the other questions on the end-of-session questionnaire. What characteristics are likely to influence people's responses to your other questions of interest? For example, the size of a participant's business may influence how useful s/he finds the information. Or, the number of children a parent has may influence his/her reaction to the parenting workshop. Also, you may be interested to know if participants who are similar respond in a similar way to your educational effort. For example, do farmers with the same type of operation respond similarly? This information will help you explain your results and help in planning future programs.

You also may be interested in knowing about the participant's previous experience, knowledge or contact with Extension.

There are a variety of participant background questions that are useful, but only include those that you will use. Such questions are typically placed at the end of the end-of-session questionnaire. You may wish to preface these questions to help participants understand their purpose. For example, "In order to know who is attending our Extension programs, please answer the following." Or, "As a basis for understanding your earlier answers, we would like to ask you some questions about yourself..." Or, "In order to know you better, we would like to ask you the following."

Background characteristics you might ask about include:

- Age
- Ethnicity
- Marital status
- Family size
- Occupation
- Size of farm/business operation
- Education
- Employment status/position
- Place of residence
- Level or proficiency in a skill
- Previous contact with Extension
- Prior knowledge of topic
- First time participants vs. repeats

SAMPLE QUESTIONS

A.	Personal Information
1.	What is your current position?
2.	What is your age?
	a Under 18 years b 18 - 24 years c 25 - 34 years d 35 - 49 years e 50 - 74 years f 75 or older
3.	What is the highest level of education that you have completed? (Circle one.)
	 a. Less than high school b. High school graduate c. Technical school or some college d. College graduate or beyond
4.	Are you employed outside the home? (Circle one.)
	a. Full timeb. Part timec. No
5.	Where do you live? (Circle one.)
	 a. Rural farm b. Rural community (less than 2,000 population) c. Town of 2,000 - 24,999 population d. City of 25,000 - 50,000 population e. City of more than 50,000 population
6.	Please provide the following information:
	a. Number of years in farming: b. Total acres farmed Total owned: Total rented:

7.	Who lives in the household during the	ne week? (Ch	eck one.	.)		
	a One parent					
	b One parent and one or more of	ther adults				
	c Two parents (or stepparents)					
	d Two parents and one or more of	other adults				
8.	How many years have you been in th	ne apple busi	ness? _	years		
9.	What is the business structure of yo	ur farm?				
	a Family owned					
	b Corporation owned					
	c Partnership owned					
	d Individually owned					
10	What agency or organization do you	ranrasant?				
10.	What agency of organization do you	represent: _				
R	Additional Information					
٥.	Additional information					
	ner background information of interest has ere they receive their information and the					pic,
1.	Have you attended meetings on water	er rights befo	re?			
	a No					
	b Yes					
	c. If Yes, Where? Who sponsored it?					
	who sponsored it:					
2	To what extent do you use the follow	ing informati	ion cour	oos for parara	ting odvice	.2
۷.	(Circle one number for each information			ces for parer	itilig auvice	,
		Alexandari	0	O '' D''	A 1 - 1	
	a Physician or nurse	Not at All	Some	Quite a Bit	A Lot	
	a. Physician or nurse b. Relatives and In-laws	1 1	2 2	<i>3</i> <i>3</i>	4 4	
	c. Friends	1	2	3	4	
	d. Books, newspaper, magazines	1	2	3	4	
	e. Extension	1	2	3	4	
	f. Child care provider	1	2	3	4	
	g. County health nurse	1	2	3	4	

3. During the past year how often have you taken part in programs provided by the following?

		How he	lpful were they? (C	heck one.)
	Approximate Number of Times	Little	Some	Very
a. Trade groups				
b. Professional associations			- -	
c. Private companies				
d. UW-Extension				
e. Vocational or business scho	pol		·	

4.	Which of the sources below do you	use for information on parenting.	(Check all
	that apply.)		

a	Magazines
b	Newspapers
C	Books
d	Health professionals
e	Friends
f	Relatives
g	Salespeople
h	Teachers
i	Extension
j	Religious community
k	Other, please list:

5. In the list below, which do you read on a regular basis. (Check all that apply.)

a	Agri-view
b	Country Today
C	Grassland Farmer
d	Wisconsin Agriculturalist
e	Extension newsletter
f	Other please list:

6.	How did you learn about this workshop? (Please check ALL that apply.)
	a Newspaper (name)
	b Magazine (name)
	c University announcement
	d Business associate
	e Friend/neighbor
	f Extension office
	g Other, please specify:
7.	Where did you learn about this satellite program?
	a Brochure mailed to you directly
	b Newspaper (Which one?)
	c Brochure given to you
	d Word of mouth
	e Internet
	f Journal or magazine (Which one?)
8.	Was this your first Extension field day? (Circle one.)
	a. Yes
	b. No
	D. 140
10.	How many workshops conducted by a Cooperative Extension agent have you attended in [year]?

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APPENDIX A

RETROSPECTIVE EVALUATION— THE POST-THEN-PRE DESIGN

Appendix A is an article, "Post-then-Pre Evaluation: Measuring Behavior Change More Rapidly" by S. Kay Rockwell and Harriet Kohn (*Journal of Extension*, Summer 1989). It explains the logic behind retrospective evaluation and includes several detailed examples of end-of-session evaluation forms.

Used with permission from the *Journal of Extension*. URL: http://www.joe.org/joe/1989summer/a5.html

Following the article are a series of sample questionnaires used with permission of the authors.

Rockwell, S. Kay. 1995. "Post-Activity Evaluation." Handout in Module # 10 of a 15 module graduate course, ALEC826: Program Evaluation in Adult Education and Training. Agricultural Leadership, Education & Communication Department, University of Nebraska: Lincoln.

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Post-Then-Pre Evaluation

Measuring behavior change more accurately

S. Kay Rockwell Harriet Kohn

What's an easy, simple, reliable, and valid way to measure whether a program has impact? This question is asked frequently by Extension agents and specialists as they respond to accountability needs within the Extension organization. The "post-then-pre" method of self-report evaluation offers one solution for documenting behavior change. The data collection instruments are relatively easy to develop, use, and analyze. Results are credible and indicate program impact even though the process seems backwards.

Problems with Typical Approach

In Extension, a typical approach has been to use a pretest-posttest research design to document behavior change. However, in certain types of self-report program evaluation, pretestposttest comparison results may be an inaccurate assessment of instructional impact because participants may have limited knowledge at the beginning of a program that prevents them from accurately assessing baseline behaviors. By the end of the program, their new understanding of the program content may have an impact on the responses on their selfassessment. If a pretest was used at the beginning of the program, participants have no way to correct an answer at the end of the program if they made an inaccurate assessment in the baseline data.1

The evaluation problem, then, is that a pretest taken at the beginning of an Extension education program may be invalid because participants have limited knowledge in responding accurately to the questions being asked on the pretest. Consider the following pretest question for a nutrition program: "Do you include one food rich in vitamin C in your diet daily?" To answer this question accurately, the respondent must have some idea of which foods are rich in vitamin C. A participant who doesn't know which foods are rich in vitamin C may overestimate vitamin C intake on the pretest. After actually participating in the Extension program and learning about foods rich in vitamin C, the participant can validly answer the question.

Now suppose the participant has increased vitamin C intake as a result of the program. On the posttest, aimed at measuring this change in behavior, the participant reports the same level of vitamin C intake as reported on the pretest. The posttest level is accurate, but because the pretest was an overestimate (due to the participant's lack of knowledge), it will appear that no change in behavior has occurred between pretest and posttest. Such an evaluation result makes it appear that the program had no effect on behavior when, in fact, the program significantly increased vitamin C intake.

Correcting Problem

The post-then-pre design corrects this problem. The problem is handled by not giving a pretest at the beginning of the program. Then, at the end of the program, the participant answers two questions. The first question asks about behavior as a result of the program. This is the posttest question. Then the participant is asked to report what the behavior had been before the

Table 1. Comparing pre-post and post-then-pre scoring.

Hypothetical self-report for "include one vitamin C rich food daily" with pre-post and post-then-pre Pre-post

Pre score= Often (4)
Post score= Often (4)

Post-then-pre

Post score= Often (4) Retrospective pre score (then)= Seldom (2)

program. This second question is really the pretest question, but it's asked after the program when the participant has sufficient knowledge to answer the question validly. That's why this approach is called post-then-pre.

Table 1 illustrates both the traditional pre-thenpost approach for the vitamin C example and the post-then-pre approach. In the pre-thenpost example, the participant incorrectly reported "often" eating vitamin C rich foods on the pretest when the accurate answer should have been "seldom." The valid posttest answer is "often." With the pre-then-post approach, Table 1 shows no behavior change. However, with the post-then-pre approach, behavior change is demonstrated because the pretest response is "seldom" and the posttest response is "often."

The "post-then-pre" design accounts for changes in learners' knowledge by allowing participants to first report present behaviors (post); and then rate how they perceived these same behaviors just before taking the course (then pre). The retrospective pretest at the end of the program is more accurate because it's answered in the same frame of reference as the posttest. Thus, the problem of what's called "response-shift bias" in self-report, pre-post designs is minimized.²

Using Post-Then-Pre for a Nutrition Course

Finding ways of reaching today's audiences that will result in healthier nutritional habits is a

challenge for nutrition educators. Recognizing that simply providing cognitive-based education won't necessarily mean positive dietary changes, a course entitled "Eating Today for a Healthier Tomorrow" (ETHT) was developed. The focus was to provide a learning environment that facilitated behavior change by involving participants in behavioral goal setting, providing correct nutritional facts, and teaching processes for evaluating dietary information.

ETHT, targeted to adults, enabled participants to use food and nutrition practices that help reduce the risks of heart disease, cancer, osteoporosis, and obesity. An instructor's manual provided directions for teaching the material and a participant's manual included all the basic dietary information. An Extension home economist and a registered dietitian taught the course cooperatively in six sessions of 2 1/2 hours each.

To assess the impact of ETHT, Extension specialists and agents developed a post-then-pre self-report instrument for instructors to use. Table 2 illustrates some of the 30 practices that represent types of behaviors to be maintained or changed as a result of taking the course. As part of the overview in the first session, instructors gave participants a copy of the 30-item list to keep in their course notebooks. At the final session, participants were asked to complete the self-evaluation instrument indicating how frequently theydid each practice before the course and at the end of the course.

Table 2. Sample practices included on self-report post-then-pre instrument.

1 = almost never, 2 = seldom, 3 = about half the time, 4 = often, 5 = almost always

	Before ETHT DID I?	End of ETHT DO I?			
Set goals for changing my health behavior Use information from nutrition labels Leave extra food on plate when it's more than I need Include one vitamin C rich food daily Limit egg yolks to three or less per week	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5	1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5 1 2 3 4 5			

Coding instructions were developed so staff could enter the data into a microcomputer file. Using SAS³ on a mainframe, a computer program was written to analyze the data and summarize the results for each practice. A chart format was used for the computer output and included the mean scores for post (present score) and then (pre score) along with the t-value and probability level of a paired t-test. The agents then graphed the results for their class on a standard form (Figure 1).

Each of the Extension agents (13 in 1987 and 16 in 1988) who taught the ETHT course received the results for their class. Data from all courses taught across the state were collapsed

into a statewide summary for use by the nutrition specialist and other Extension staff.

...Using a post-then-pre evaluation design greatly helps specialists and agents document how Extension programs effect change in people's lives.

Using the Results

The Extension agents used the results in three ways. First, they reviewed changes participants made and associated these changes with the course content and teaching methods. If participants made no change in certain behaviors,

Behavior	Almost never	Seldom	About half time	Often	Almost always
Set goals for changing my					
health behavior	1	2	`\ 3	4	5*
Use information from					
nutrition lables	1	2	\ 3 <	4	5*
Include one vitamin C					
rich food daily	1	2	3>	<u> </u>	5*
Leave extra food on plate					
when it's more than I	need 1	2	< <u> </u>	4	5*
Limit egg yolks to three or			`_		
less per week	1	2	3	4	 5*
*Significantly different at	Did before	e ETHT	D	id after ETH	IT
.05 level of significance					

agents questioned whether they needed to alter their teaching method or amount of emphasis placed on the topic. Second, agents used the data indicating behavior change to support course impact. The impact findings provided accountability to local Extension boards and councils as well as to the Extension organization. Third, the results were shared with local residents through newspaper releases. And, they provided good testimonials as agents promoted new classes.

The nutrition specialist and other state Extension staff used the statewide summary to report course impact to a funding agency as well as to ES-USDA. A summary of the findings has also been used by administrative staff with legislators, boards and councils, and other decision makers.

Conclusions

Using a post-then-pre design to identify selfreported behavioral changes can provide substantial evidence for program impact. Although a nutrition example was provided here. the methodology can be adapted and easily applied to other Extension programs. Theoretically, Extension specialists and agents develop programs from a set of behavioral objectives. The challenge in constructing a post-then-pre evaluation instrument is to identify specific behaviors that may change and then develop an appropriate measurement scale that tests the amount of self-perceived behavior change. Clientele can easily complete a post-then-pre instrument in a relatively short time frame. Computers are easily accessed for accurate data analysis. Results can be effectively reported simply without taking a great deal of staff time. Using a post-then-pre evaluation design greatly helps specialists and agents document how Extension programs effect change in people's lives.

Footnotes

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Evaluation of the Successful Aging Conference

A. Directions

Please rate yourself on each of the items below **AFTER** you participated in the *Successful Aging Conference*

B. Directions

THINK BACK and rate yourself on each of the items below **BEFORE** you participated in the *Successful Aging Conference*

I - There am a number of resources available for <i>older adults</i> . How familiar are (were) you with:	Very familiar	Quite familiar	Somewhat familiar	Unfamiliar	Very familiar	Quite familiar	Somewhat familiar	Unfamiliar
a. printed material that is available	1	2	3	4	1	2	3	4
b. toll-free phone numbers that are available	1	2 2	3	4	1	2	3	4
c. services that are available	1	2	3	4	1	2	3	4
2. There am <i>A</i> number of resources available for <i>caregivers and families</i> . How familiar are (were) you with:								
a. printed material that is available	1	2	3	4	1	2	3	4
b. toll-free telephone numbers that are available	1	2	3	4	1	2	3	4
c. services that are available	1	2	3	4	1	2	3	4
	A	Ability to loca	te resources Somewhat		A	Ability to loca	te resources Somewhat	
3. How would you rate your <i>ability to</i> locate:	Varu good	Quite good		Not good	Very good	Quite good		Not good
a. printed material that is available	Very good 1	Quite good	good 3	Not good 4	very good	Quite good	good 3	Not good 4
b. toll-free phone numbers that are available	1		3	4	1	2	3	4
c. services that are available	1	2 2	3	4	1	2	3	4
		Degree of uno	lerstanding			Degree of un	derstanding	
4. How would your rate your <i>understanding</i> about:	A lot	Quite a bit	Some	Very little	A lot	Quite a bit	Some	Very little
a. the aging process	1	2	3	4	1	2	3	4
b. the role of mental health in older people	1	2	3	4	1	2	3	4
c. the role of spiritual health in older people	1	2 2	3	4	1	2	3	4
d. the role of physical health in older people	1	2	3	4	1	2	3	4
	Quite enthusiastic	Slightly enthusiastic	Slightly unenthusiastic	Quite unenthusiastic	Quite enthusiastic	Slightly enthusiastic	Slightly unenthusiastic	Quite unenthusiastic
5. How do you feet about growing older?	1	2	3	4	1	2	3	4

6. Approximately, how often do you use resources (i.e., printed material, toll-free telephone numbers, services, etc.) available to older people?	10. What practical information have you gained from this conference that will help you personally or help you as a caregiver or a professional?
1. Weekly	
2. Bi-weekly	
3. Monthly	
4. Bi-monthly	
5. Less than once every two months	
7. By participating in this conference, how many strategies have you learned that will make it easier for you to grow	11. What is the primary reason you came to the conference?
older?	1. Because I'm a caregiver or family member of
1. None SKIP TO #8	an older person
2. Some (1 to 3 strategies)	2. Because I'm a professional employed in an
3. Several (4 to 6 strategies)	occupation dealing with aging
4. A lot (over 6 strategies)	3. Because I want the knowledge for my own
	benefit as I grow older.
8. Do you think these strategies will alter the way you might grow older?	4. Other (please explain)
1. Yes, definitely	12. Where do you live?
2. Yes, probably	1 Wishing its limits of a village or size.
3. Probably not	1. Within city limits of a village or city
4. Definitely not	2. Outside city limits
9. How much opportunity have you had at this conference to	13. Are you
share information on aging strategies with others?	1. Female
1. A great deal	2. Male
2. Quite a bit	14. What year were you born?
3. Some	•
4. Very little or none	

PESTICIDE APPLICATOR TRAINING EVALUATION

Circle one: Initial Certification Re-	-certifica	tion						
Training Session (town) Date								
PLEASE EVALUATE THIS TRAINING SE BY CIRCLING THE APPROPRIATE NUM			r Exce	ellent	Good		Fair	Poor
Relevance of topics to you		5		4	3		2	1
The quality of the teaching materials		5		4	3		2	1
Presenter's knowledge about the topic		5		4	3		2	1
Preparation of the presenter		5		4	3		2	1
DID YOU LEARN ANYTHING IN THIS TRAIN ABOUT:	IING		Gave me considerab w informat	le ne	ave me so w informat		Reinforced wl I already kne	
methods to prevent ground water conta	minatio	n	3		2		1	
signs and symptoms of pesticide poisor	ning		3		2		1	
the effects of pesticides on people			3		2		1	
the effects of pesticides on the environr	ment		3		2		1	
handling pesticides			3		2		1	
reporting pesticide spills			3		2		1	
laundering pesticide contaminated cloth	ning		3		2		1	
pesticide labels and formulations			3		2		1	
controlling insects to an integrated pest	icide pr	ogram	3		2		1	
managing pests (weeds/disease/insects	s)		3		2		1	
	Afte	er toda	y, will yo	u	Befo	re to	day, did yo	u
PESTICIDE APPLICATOR PRACTICES	Almost always	Often	Sometimes	Almost never	Almost always	Often	Sometimes	Almost never
use nonchernical control methods?	4	3	2	1	4	3	2	1
check equipment calibration?	4	3	2	1	4	3	2	1
check for worn nozzles?	4	3	2	1	4	3	2	1
check labels for signal words?	4	3	2	1	4	3	2	1
use protective gloves?	4	3	2	1	4	3	2	1
use protective goggles?	4	3	2	1	4	3	2	1
use protective coveralls or aprons?	4	3	2	1	4	3	2	1
scout fields for specific pest problems?	4	3	2	1	4	3	2	1

PUBLIC POLICY EDUCATION PROCESS TRAINING Evaluation for Participants

Directions: Read each of the statements and rank yourself at the present time. Next, think back to your understanding about each statement before taking the course. Circle the appropriate numbers using the following key:

- 1 = no understanding/involvement
- 2 = little understanding/involvement
- 3 = moderate understanding/involvement 4 = quite a bit of understanding involvement
- $5 = \dot{c}$ onsistently involved

		My Understanding and Involvement									
		After Training Before Training							ning		
How would you describe your understanding of the following:	None	Little	Mod- erate	Quite a Bit	Com- plete	None	Little	Mod- erate	Quite a Bit	Com- plete	
1. The role of citizen participation in public policymaking	1	2	3	4	5	1	2	3	4	5	
2. The difference between a private and public issue	1	2	3	4	5	1	2	3	4	5	
The importance of public policy education in Extension programming	1	2	3	4	5	1	2	3	4	5	
Controversy as a normal part of public policy education programming	1	2	3	4	5	1	2	3	4	5	
5. Who is affected by a public policy issue	1	2	3	4	5	1	2	3	4	5	
6. How administrator's view involvement in public issues	1	2	3	4	5	1	2	3	4	5	
7. Models describing "who" makes public decisions	1	2	3	4	5	1	2	3	4	5	
8. Models describing "how" policymaking is a process	1	2	3	4	5	1	2	3	4	5	
9. How citizen influence might occur in the community	1	2	3	4	5	1	2	3	4	5	
How facts, myths, and values create controversy with public issues	1	2	3	4	5	1	2	3	4	5	
11. The role of ethics in public decision making	1	2	3	4	5	1	2	3	4	5	
12. The role of educator versus advocate.	1	2	3	4	5	1	2	3	4	5	
13. Different roles for educators as they teach public policy issues	1	2	3	4	5	1	2	3	4	5	
How educators can deliver public policy education through FCL program	1	2	3	4	5	1	2	3	4	5	
15. How an issue evolves in the public policy education process	1	2	3	4	5	1	2	3	4	5	
16. Teaching subject content and public policy process specifically for the audience (individuals, families, groups/organizations, policymakers)	1	2	3	4	5	1	2	3	4	5	
17. The alternatives and consequences approach	1	2	3	4	5	1	2	3	4	5	
Determine teaching strategy according to audience type (policymakers, groups and organizations, or individuals and families)		2	3	4	5	1	2	3	4	5	
19. How to monitor and evaluate a public policy education program	1	2	3	4	5	1	2	3	4	5	
How to analyze public policy issues to identify potential for programming	1	2	3	4	5	1	2	3	4	5	

Directions: Circle the number that comes closest to describing the extent to which you feel or act involved for each of the statements on the left hand side. Describe your involvement after taking the course and before taking the course. Use the following key:

- 1 = never actively involved (no involvement)
- 2 = rarely actively involved (little involvement)
- 3 = sometimes actively involved (moderate involvement)4 = often actively Involved (quite a bit of involvement)
- 5 = consistently actively involved (almost complete)

	My Understanding and Involvement									
	After Training Before Training									
Please Continue:	Never	Rarely	Some- times	Often	Con- sistently	Never	Rarely	Some- times	Often	Con- sistently
21. How would you describe your involvement with politics and government?	1	2	3	4	5	1	2	3	4	5
22. How would you describe your job or career in relation to public affairs involvement?	1	2	3	4	5	1	2	3	4	5
23. How would you describe your personal or free time as to public affairs involvement?	1	2	3	4	5	1	2	3	4	5
24. How would you describe the public affairs involvement of the groups to which you belong?	1	2	3	4	5	1	2	3	4	5
25. To what extent do you talk to others and try to share your opinions on public affairs activities?	1	2	3	4	5	1	2	3	4	5
26. In your opinion, how involved should the ordinary citizen be in public affairs activities?	1	2	3	4	5	1	2	3	4	5
27. Overall, how involved are you in public affairs activities? (voter registration)	1	2	3	4	5	1	2	3	4	5
28. Suppose something was unjust. How active would you be in efforts to change it?	1	2	3	4	5	1	2	3	4	5

Please estimate the amount of personal time you spend on issues at the local level, state level, and the national level during a typical week. (Consider the methods you have learned about in training, workshops, reading or updating on the issue.)

			sues at the State Level ——Hours per week			
32. Se	ex	1 Female	2 Male			
33. Ma	arital Status	1 Married	2 Never married	3 Divorced	4 Widowed	
34. Re	esidence	1 Urban	2 Suburban	3 Rural, farm	4 Rural, nonfarm	
35. Ho	ow many persons	(including your	self) are in your househol	d?		
36. Ho	ow many years ha	ive you been en	nployed professionally?			
37. Hi	ghest education a		_1 High School Diploma _2 Working on Degree _3 Bachelors	5 Doctorate	specify	
all	that apply)		,	·	r political participation? (Chec	ck
a	Political Part	y Training b	League of Women V	oters cOthe	r, please specify	

Post Meeting Evaluation New Tools for Pasture Production II

Number of head of beef cows (describe)			
Number of yearlings on pasture			
Usual number of groups of cattle			
Number of acres of pasture			
Number of pasture units (paddocks)			
Percent of pasture covered with trees			
The objective of this program is to provide you with information ar operation more productive and profitable. Please indicate relevance operation.			Superior Excellent Good Fair Poor
Did you learning anything in this program about	Gave me considerable new information	Gave me some new information	Reinforced what I already knew
How cattle can be used to enhance grass production	3	2	1
How to get started in planning and implementing rotational grazing	3	$\frac{-}{2}$	1
How to plan and design a water distribution system	3	2	1
Design and plan fence layouts for rotational grazing	3	2	1
Hay storage with the use of tallow and or plastic coverings	3	2	1
Production and carrying capacity with rotational grazing How forages need adequate rest periods for maximum production	3	2 2	1 1
Please indicate what best represents your current grazing system Use continuous season long grazing (5 to 6 months) Move cattle 3 to 5 times per season Move cattle every 7 to 30 days Move cattle every 3 to 7 days Move cattle every 1 or 2 days Move cattle every 1 or 2 days		nmant?	
Please indicate what grazing system you would like to be using in Use continuous season long grazing (5 to 6 months) Move cattle 3 to 5 times per season Move cattle every 7 to 30 days Move cattle every 3 to 7 days Move cattle every 1 or 2 days What is the most limiting factor keeping your operation from more	·		ng system?
	initely Probab vill will	ly Probably will not	Definitely will not

Please make additional comments or changes you plan to make, and/or thoughts on the back of this survey.

Utilize more electrical cross fencing

Make changes in hay storage systems

Make changes in water systems for livestock

Utilize mom high-tensile fence

4

4

4

3

3

3

3

2

2

2

2

1

1

1

1

Eating Today for a Healthier Tomorrow (ETHT) Overall Evaluation for Participants

Date of b	IKIH (used	tor I.D. Numi	oer):		
(Month)	(Day)	(Year)	(County)	(Course)	(Date)
				e help us to evaluate the ov need of its participants.	erall effectiveness of the
A. Have yanyone?	ou shared	the information	on from the program	with	
	_ 1. Yes		2. No		
If yes categ		ite how many	in each of the follow	ving	
Numb	er:				
	;	Spouse			
	(Children			
	(Other relative			
	(Co-worker			
	F	-riend			
	E	Extension club)		
	(Other			
B. In gene	ral I felt the	e quality of the	ETHT program was	s:	
C. What	suggestions	s do you have	for improving the E	ТНТ	

Directions: Circle the number that comes closes to the degree to which you DID, DO and WILL DO the following practices.

BE SURE TO RESPOND TO EACH ITEM.

Key:12345Almost
neverSeldom
the timeAbout half
the timeOften
always

			Pas	t			Pr	ese	ent			F	utur	е	
A. Use Practices that Enhance Health Eating	i	Befo C	re E)ID		Т	E		of E	THT ?	Γ		Two afte W		ΉΤ	
Set goals for changing my health behavior	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
2. Eat at least 3 meals a day.	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
3. Eat the amount of food daily that prevents gaining unneeded pounds	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
4. Leave extra food on plate when it's more that I need	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
5. Drink 6 to 8 cups of fluid each day	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
6. Use information from nutrition labels	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
7. Exercise for at least twenty minutes three of more times a week	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
B. Select foods to Provide a Healthful Variety of Foods															
8. Consume at least 2 milk servings a day	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
9. Eat 4 or more servings of vegetables or fruits each day	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
10. Eat broccoli, cabbage, Brussels sprouts, turnips, cauliflower and/or rutabagas each week	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
11. Include one vitamin C rich food daily	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
12. Eat at least 4 servings of bread and cereals daily	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
13. Select a variety of whole grain products	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
14. Eat fish at least once per week	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
15. Eat at least one serving of cooked dried beans or peas each week	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
16. Use vegetable oil in my cooking and baking	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
17. Eat a variety of wholesome, basic foods each day	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

Key:

1 Almost never 2 Seldom 3 About half the time

4 Often 5 Almost always

PRACTICES		Past			Present				Future						
C. Limit Fat and Cholesterol	E		re E	THT ?	Ī	End of ETHT DO			00	Two months after ETHT WILL I?					
18. Drink skim milk and lowfat milk	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
19. Trim the visible fat from meat	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
20. Eat lean cuts of meat	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
21. Avoid eating the skin of chicken	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
22. Skim fat from gravies, soups and sauces	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
23. Limit egg yolks to 3 or less per week	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
24. Avoid putting butter or margarine on vegetables	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
D. Limit Salt Intake															
25. Limit the amount of salt added to cooking	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
26. Avoid highly salted foods	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
27. Avoid adding salt to my foods at the table	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
E. Limit Sweet, Fatty, and Salty Snacks and Desserts															
28. Limit soft drinks to no more than one per day	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
29. Avoid eating sweet and rich desserts	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
30. Avoid eating snacks with high amounts of fat, sugar or salt	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5

31. Please identify additional eating and other practices that changed as a result of being in the ETHT course:	

APPENDIX B

RATING SCALES

We often ask participants to evaluate a session by selecting from among different choices, such as "excellent," "good" or "disappointing." When we order these options to express differences of opinion, we are using a "scale."

When developing a scale, think about the kind of information you need. **Category scales** use words or phrases and give respondents clear and defined choices. **Numeric scales** use numbers and may give respondents more options to choose from. **Semantic differentials** use pairs of opposing adjectives to help measure people's reactions to a topic or idea.

Whichever scale you use, it should be easy to read and understand. Give clear instructions and keep the order of choices (e.g. from low to high and negative to positive) the same throughout the form (except with semantic differentials). Also, consider your respondents' age, literacy level and cultural background.

An odd number of options allows people to select a middle option and an even number forces respondents to take sides. An even number is appropriate when you want to know what direction the people in the middle are leaning. Forcing people to choose a side may frustrate some respondents.

As a general rule for creating scales, simpler is better. Ensure that the wording in the scale makes sense for the question.

Category Scales

Category scales use words or phrases to express a range of choices. The wording of your scale depends upon what you want to know, the level of differentiation you desire and your respondents.

For Example:

not at all satisfied	not at all satisfied
somewhat satisfied	slightly satisfied
very satisfied	moderately satisfied
	very satisfied
	extremely satisfied

Whether you use three, four or five categories in your scale depends on the amount of differentiation that you want or that is inherent in the question. Category scales with more than six options are hard to create and even harder to read and understand.

A common mistake when creating a category scale is including "no opinion" or "uncertain,"

as a middle response. These options are not actually a part of the scale. A middle category in a scale between "agree" and "disagree" would be "neither agree nor disagree." Options such as: "no opinion," "neutral," "not applicable" and "don't know" are placed off to the side, in a separate column.

Make sure that the scale is balanced. When you give both positive and negative options, your scale should contain equal numbers of each. A poor set of responses would be: "decreased, stayed the same, increased a little, increased somewhat, increased a lot" (options include only one negative choice and three positive ones).

Finally, when using words in your scale, it is important that the words all refer to the same thing.

For Example:

What was your reaction to the session? (Please check your response.)

POOR	BETTER
not worth my time slightly interested moderately interested very interested	not at all interested slightly interested moderately interested very interested

In the above example, the choices in the left column include two concepts — "worth" and "interest level." The right column includes only "interest level," making better response options.

Sample Category Scales

strongly disagree disagree neither agree nor disagree agree strongly agree	disagree neither agree nor disagree agree	completely disagree mostly disagree slightly disagree slightly agree mostly agree completely agree
--	---	---

very rarely rarely occasionally frequently very frequently	never seldom about half the time usually always	not at all little occasionally often all the time
not really somewhat quite a bit	never rarely sometimes often always	never seldom sometimes often

not much some a great deal	a little some a lot	not much little somewhat much a great deal
not important moderately important very important	unimportant of little importance important very important	unimportant of little importance moderately important important very important

poor	very poor	extremely poor
fair	not good	below average
average	all right	average
good	good	above average
excellent	excellent	excellent
too elementary okay too technical	too fast just right too slow	poor not good good excellent
did not understand	no help at all	quite unsuccessful
understood a little	slightly helpful	somewhat unsuccessful
understood most of it	fairly helpful	somewhat successful
understood very well	very helpful	quite successful

definitely will not probably will not probably will definitely will	absolutely no mostly no neither yes or no mostly yes absolutely yes	never true sometimes true often true
not at all very little somewhat to a great extent	not at all true slightly true true about half the time mostly true completely true	probably not maybe quite likely definitely

very dissatisfied somewhat dissatisfied neither satisfied nor dissatisfied somewhat satisfied very satisfied	not at all satisfied slightly satisfied somewhat satisfied very much satisfied
didn't get what I wanted got a little of what I wanted got a lot of what I wanted got everything I wanted	very uncomfortable uncomfortable comfortable very comfortable

Numeric Scales

Numeric scales allow for greater differentiation and more options. You may have a numeric scale with 3 to 10 or more numbers. Numeric scales are also useful when there are no words choices to fit your question.

Research suggests numerical scales are least confusing when they go from low to high on a left to right continuum.

For Example:

Disagree				Agree
1	2	3	4	5

Some people may relate best to a 10-point scale or percentages.

Sample Numeric Scales

0	10	20	30	40	50	60	70	80	90	100
0	1	3	4	5	6	7	8	9	10	
-5	-4	-3	-2	-1	0	1	2	3	4	5
Low	1	2	3	4	5	High				
Agree	1	2	3	4	5	Disagre	ee			
Poor	1	2	3	4	Excelle	ent				
1	2	3	NA							

Semantic Differentials

Semantic differentials are a way to capture attitudes, opinions and impressions about a certain topic. Respondents mark a space along a line between two sets of opposing adjectives.

My Communication Skills with My Parents:

Beautiful	 Ugly
Passive	 Active
Loud	 Quiet
Positive	 Negative
Angry	 Calm
Boring	 Interesting

While it may seem odd to describe communication skills as "beautiful" or "ugly," the point of semantic differentials is to record immediate impressions, not studied responses. Still, the adjective pairs should bear some relationship to the topic that you are examining. Forms usually list ten to 12 adjective pairs for each subject. This may vary depending upon the age or ability of your respondent. Mix the order of positive and negative adjectives, so that the positive ones aren't always on the same side of the page.

You may use three, five or seven spaces between the adjective pairs. The odd number allows respondents to mark the middle space on the scale when they have no particular impression or feeling about the subject. Assign numbers (from 1 to 3, 5 or 7) to the spaces between the adjective pairs, with "1" for the space next to the negative adjective. Score each answer depending on where respondents put their "X" and then compute the average score.

Adjective Pairs

confusingclear	coldwarm
dynamicstatic	sweetsour
superficial profound	dulllively
right wrong	pleasantunpleasant
biasedobjective	weak strong
leadingfollowing	soothingjarring
closedopen	dirtyclean
valuableworthless	unsureconfident
tenserelaxed	goodbad
activepassive	orderlychaotic

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