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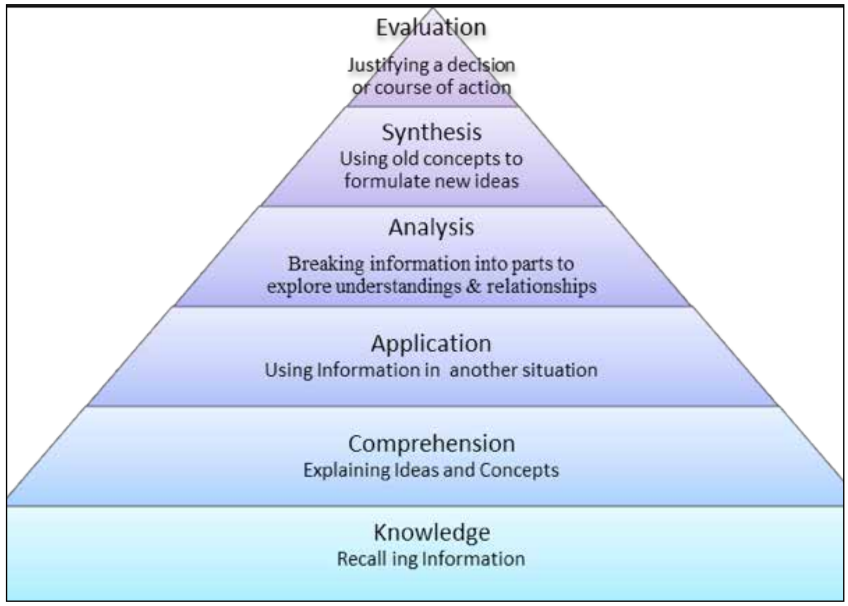
Guidelines for Effective LTAP Course Evaluation



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Guidelines for Effective LTAP Course Evaluation

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ABSTRACT

As part of the National LTAP program, funded by the Federal Highway Administration and state departments of transportation, one goal of the Utah LTAP Center is to provide training for new and long-term local government employees to help keep them up-to-date with appropriate technologies and regulations encountered in the course of their job. It is vital for this training to (1) be accessible to a wide variety of learners and (2) have an immediate impact on the participant's ability to fulfill the essential functions of their job. To achieve this goal, training opportunities must be provided to directly facilitate that end. Strong course evaluation instruments are necessary to ensure that training courses are meeting stated objectives and participants are given information to help them better complete job functions.

This report outlines the scope of the current Utah LTAP evaluation process and provides recommendations on strengthening course evaluation tools and processes to better facilitate effective instruction to meet course objectives for participants.

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EXECUTIVE SUMMARY

Each year, millions of dollars are collectively spent by state and tribal departments of transportation on continuing education and professional development courses for local governments (towns, cities and counties) in their jurisdictions. These courses are meant to provide training for new and long-time employees and give them the opportunity to gain and/or update their knowledge of current regulations and best practices relevant to job responsibilities. Furthermore, many organizations use continuing professional education to help employees advance their careers. This chance for training is particularly critical since many of the targeted employees do not have more than a high school education. It is important that this training is accessible and has an immediate impact on the participant's ability to fulfill essential functions of their job.

As part of the National LTAP program, the Utah Local Area Technical Assistance Program (LTAP), in conjunction with the Utah Department of Transportation (UDOT), provides professional training to local government employees. At present, courses are evaluated based on customer satisfaction, as determined by participant completion of exit surveys based on their initial response to the training. Current evaluations are one-size-fits-all and do not tie responses to actual objectives of the particular trainings. Also, there is no mechanism to follow up with participants after they have had a chance to apply what they've learned to determine whether information presented in the training was used in the course of the participants' job.

The goal of LTAP training is to provide opportunities for local government employees to stay current with appropriate technologies and regulations encountered in the course of their job. To accomplish this goal, training opportunities must be provided to directly facilitate that end. Strong course evaluation instruments are necessary to ensure that training courses are meeting stated objectives and participants are provided with information that can help them better complete their job functions. To make evaluations of training programs more valuable and relevant, a set of guidelines for LTAP program directors were developed as part of a subcontract to researchers at Utah State University.

This report outlines scope of the current Utah LTAP evaluation process and provides recommendations for strengthening course evaluation tools and processes to better facilitate effective instruction to meet course objectives.

1. INTRODUCTION

Each year, more than $18 million is collectively spent by state and tribal departments of transportation on continuing education and professional development courses for county and local governments in their jurisdictions. These courses are meant to provide training for new employees and provide long-term employees with an opportunity to update their knowledge on current regulations and best practices. Furthermore, many organizations use this continuing professional education as a way for employees to advance, given that many of the targeted employees do not have more than a high school education. This training must be accessible and have an immediate impact on the participant's ability to complete essential functions of their job.

The Utah Local Area Technical Assistance Program (LTAP), in conjunction with the Utah Department of Transportation (UDOT), provides professional training to employees.

Currently, these courses are evaluated based on customer satisfaction. Participants are asked to complete exit surveys based on their initial response to the training. The surveys also invite participants to indicate whether or not they liked the course and whether or not they believed the information presented could help them in their job. Current evaluations do not tie responses to actual objectives of the trainings or follow up with participants to determine whether the information presented in training is/was used in the course of the participants' job. Often, this lack in the evaluations has led to courses, which are seen as nothing more than a way to advance one's career with little to no long-term retention necessary. If the goal of continuing education is/was to provide opportunities for employees to stay current with appropriate technologies and regulations encountered in the course of their jobs, then it is necessary to provide training opportunities that facilitate this end. Strong course evaluation instruments will ensure that training courses are meeting stated objectives and participants are given information that may help them better complete their job functions. Program director guidelines were developed as part of a subcontract to researchers at Utah State University to make evaluations of training programs more authentic and useful. The following set of questions guided development of these guidelines:

1. How can program directors ensure that evaluation instruments are relevant to course content?
2. How should evaluations be developed and conducted in order to maximize links between participants needs and associated skills?
3. How can use of evaluation feedback be incorporated into employee performance appraisals?
4. How to use systematic and relevant assessment cycles for program improvement.

The guidelines are organized into sections that address the need for evaluation and background of training programs; and propose a set of recommendations.

1.1 Why Evaluate Training Programs

Bramley (2003) defines training as "a process which is planned to facilitate learning so that people can become more effective in carrying out aspects of their work." According to CIPD (2005) training is "an instructor-led and content-based intervention leading to desired changes in behavior and which, unless it is on-the job training, involves time away from the workplace in a classroom or equivalent." Training involves learning and is a part of learning. It is essential not only to increase productivity, but also to motivate and inspire workers by letting them know how important their jobs are and giving them all the information they need to perform those jobs (Nonprofit World, 1998). McNamara (n.d.) lists the following as general benefits from employee training:

- increased job satisfaction and morale
- increased motivation
- increased efficiencies in processes, resulting in financial gain

- increased capacity to adopt new technologies and methods
- increased innovation in strategies and products
- reduced employee turnover

Training programs can be expensive, requiring both time and money to be successful; however, successful training programs can lead to overall improvement in organizational operations. For this reason, it is important to evaluate both the training program and long term effects of learning that occurred on the participant—more specifically, how participants implement trainings into their job performance. In a study of 150 training professionals, Saks and Burke (2012) found that evaluation frequency was positively correlated to training transfer, especially when those evaluations focus on behavior and results (according to the Kirkpatrick model). Further, evaluating training programs on a regular basis allows organizations and trainers to provide state-of-the-practice training.

1.1.1 Evaluation Goals

Current LTAP workshop evaluations are not adequate in assessing if/how participants use information presented in their jobs. The current evaluation mechanism focuses on participant reaction to the training, instead of long-term plans for putting training into practice. The goal of these guidelines is to help program directors determine effectiveness of current LTAP workshops; provide necessary information to instructors and program developers relative to alignment to stated objectives and outcomes; and increase participants' ability to utilize newly learned job skills training. These evaluation guidelines will provide information on how to assess elements of workshops and identify which components should be replicated in future initiatives. Recommendations to improve current evaluation efforts also will be detailed.

1.1.2 Stakeholder Assessment

It is important to consider the needs and viewpoints of multiple stakeholder groups. Stakeholders are "any group or individual who can affect or is affected by the achievement of the organization's objectives" (Freeman, 1984, 46). While often it is not possible or practical to consider all stakeholder groups in every evaluation decision, it is important to consider key groups to ensure long-term success of policies, programs, and organizations (Bryson and Crosby 1992; Baumgartner and Jones 1993; Roberts and King 1996; Eden and Ackermann 1998; Jacobs and Shapiro 2000; Bryson, Gibbons, and Shaye 2001; Abramson and Kamensky 2001; van Schendelen 2002).

The following stakeholders are important to consider, along with their interests and perspectives, and how each stakeholder should be involved in the evaluation process:

- LTAP Directors and Administrators—The views of directors and administrators (those deciding upon and implementing the program) are important because they are the ones charged with developing and implementing the training program. If the program does not achieve its stated goals, they are the ones who will be held responsible.
- LTAP Trainers—The views of the trainers tasked with planning and teaching various workshops and courses are important because trainers directly administer the program. Trainers also are responsible for aligning course objectives, short and long term outcomes, and instruction based on updated course evaluation procedures.
- Employees Participating in Trainings—The views of employees participating in various training opportunities are important because they will be required to sit through classes, engage in assignments and questionnaires, and be directly affected by the implementation of changes to the course evaluation process and resulting changes to courses. This group also has the most to gain from the training (if successful), because it will provide them with necessary knowledge and skills to better perform their current job responsibilities, and provide opportunities for career advancement. Participants also will be the group responsible for providing most of the course

evaluation data, which will allow trainers and administrators to better structure courses to meet needs of the participants.

- Employee Supervisors—Supervisors will benefit directly from a better-trained and more qualified workforce. Supervisors also should have input in the types of courses and workshops offered since they are the ones who will have a better understanding of the types of skills employees need.
- Taxpayers—Because LTAP programs and, by extension, the trainings are funded by federal grants comprised of money from taxpayer dollars, many taxpayers may believe they have a stake in the quality of training provided to local workers. Although not directly involved in the planning and execution of the workshops, taxpayers must be made aware of the program evaluation efforts, as they are more likely to support the use of public funds if they believe the funds are being used for successful programs.

Table 1.1 summarizes the plan for stakeholder assessment and engagement.

Table 1.1 Stakeholder Assessment & Engagement Plan

Stakeholder Categories	Interests/Perspectives	Role in the Evaluation	How to Engage
Persons involved in program operations			
• LTAP Directors	• Make training relevant • May not fully understand current workforce training needs	• Defining program and context • Identifying data sources	• Interviews • Meetings
• Instructors	• Fear program (and jobs) may be negatively changed • See program evaluation as a personal judgement	• Collecting data • Interpreting findings • Disseminating and implementing findings	• Direct roles in conducting evaluation
Persons served or affected by the program			
• Employees participating in the training	• May not understand the need for trainings • Want better and accessible workshops	• Providing customer perspective • Interpreting findings	• Survey
• Supervisors	• May feel a disconnect between needed on the job skills and what is being taught at the workshops • May not see improvement in their workers as a result of training	• Providing community context	• Inform of findings
• Taxpayers	• May not understand where their money is going	• Disseminating findings to community audiences	• Inform of findings
Intended users of evaluation findings			
• Instructors	• To show effectiveness • Use findings to enhance the program	• Defining information needed from the evaluation • Developing and implementing recommendations	• Direct role in conducting evaluation
• LTAP planners	• Know if the program is effective: best use county funds	• Providing administrative/ funding context • Interpreting findings • Work closer with State DOTs (if needed)	• Some a direct role; others through a meeting
• State DOTs	• Provide effective and acceptable access to well-designed programs	• Interpreting findings • Modifying practice (if needed) • Work closer with LTAP planners (if needed)	• Meeting

From the beginning, three groups of people will be core users of the evaluation findings. They use findings in different ways and for different purposes. Table 1.2 summarizes the users of this evaluation, what information they need or would like to get from the evaluation, and how they intend to use that information to achieve what they need or set out to do.

Table 1.2 Stakeholder Needs & Uses

Users	Need/Want to Know	Uses
County administrators/State DOTs	Whether the program is working or not	Determine whether the program should be funded to continue or expand its services
LTAP planners/ Program managers	How to enhance or refine the program	Implement change to increase effectiveness of the program
Instructors	Outcomes	Adjust course content and teaching methods, if needed

Purposes of evaluation include: (1) checking whether programs are accomplishing their goals and objectives, and (2) identifying improvements on the method of delivery for training. The results of this formative evaluation should be used to improve and further refine workshop training. Both the Director of the LTAP program and the workshop presenters will coordinate and carry out the Evaluation Plan. It is important to remember that evaluations do not fit into a "one size fits all" approach due to contextual influences surrounding the program evaluation (Rossi, Lipsey, & Freeman, 2004, 32).

2. BACKGROUND AND DESCRIPTION OF THE LTAP PROGRAM AND PROGRAM LOGIC MODEL

2.1 Program Goals

Local Area Technical Assistance Programs (LTAPs) were established in the 1980s as a way to help local agencies improve their transportation networks. The nationwide system of technology transfer centers, many housed at universities, develop their own procedures for transferring information to effectively address needs of the localities they serve. Funding for each center is awarded through a competitive federal aid process and requires support from state departments of transportation, federal funds, local agencies, and universities. Each center enables local agencies to increase transportation expertise at the local level. More specifically, LTAPs exists to provide localities with access to materials prepared at the national level and to promote the effective use of research findings and innovations for improving transportation at the local level. Workshops and other professional development opportunities are provided by LTAP centers to local agencies as a way to help them effectively manage their local transportation programs.

2.2 Services

Utah State University's strategic mission for the LTAP center is aligned with UDOT's strategic goals: (1) take care of what locals have, (2) make local systems work better, (3) improve safety, and (4) increase capacity of the local road system. Key metrics to measure the success of LTAP activities will include an increase in the number of workshops, trainings, and participation in the program. The LTAP center will strive to be as proactive as possible to reach more people with more services. This includes making best use of webinars and videoconferences to conduct training, and using of technology whenever possible. With tight financial conditions facing localities, it is essential for LTAP to use technology to reach people that may not be able to attend traditional workshops. The continuing difficult economic conditions will prove to be a challenge for delivering knowledge to people statewide; however, Utah State University is ready to overcome these challenges. The Utah LTAP at USU will continue activities that have given recognition to the center as a leader in innovation in the region and nationwide.

2.3 Current Evaluation Efforts

Utah LTAP collects data from surveys and other methods, and reports that information through the advisory board meetings, on the center's website using executive dashboards, and through an annual report. Once the data is collected, performance evaluation is conducted using key metrics established from the national LTAP program and from within the Utah center. Annually, the center uses the data from the performance evaluation to create continuous improvement plans submitted each year to UDOT.

2.4 Data Collection

Following the Kirkpatrick level I (details below) format in assessing effectiveness at workshops, evaluations are collected at each workshop. These evaluations indicate how training courses are valued and what is not effective. Over the past two years, instructors and course content have always scored excellently, with 90%+ respondents giving favorable marks. Course evaluations collected at workshops provide feedback on needs of the transportation workforce. Results are compiled and presented to the Advisory Board to determine what course materials must be prepared and/or presented. The Director meets with the Utah League of Cities and Towns Public Works Chairman to determine topics based on need and prepares an agenda. Each year the Director meets with the Utah American Public Works Association leadership to determine the needs of their members and provides courses. Current evaluations do not address long term use of the trainings once participants return to their jobs.

3. RECOMMENDATIONS

The following section details evaluation needs and activities suggested to meet those needs based on the evaluation guidelines presented above.

Table 3.1 Recommendations by Guiding Question

Guiding Question	How can program directors ensure that evaluation instruments are relevant to course content?	How should evaluations be developed and conducted to maximize links between participants needs and associated skills?	How can use of evaluation feedback be incorporated into employee performance appraisals?	How can programs use systematic and relevant assessment cycles for program improvement?
Evaluation Need	• Clear and concise course objectives and measurable learning outcomes for all workshops/courses • Clear and concise course descriptions for all workshops/courses	1. Evaluation questions that reflect each of Kirkpatrick's four levels of evaluation 2. A way to gauge transfer of training	1. A way to gauge transfer of training	1. Provide trainers with the opportunity to review and reflect upon the evaluations from their courses
Suggested Activities	1. Write new descriptions for each workshop/class including objectives and measurable learning outcomes	1. Revise the current post-workshop evaluation survey 2. Create follow-up surveys and administer through email at 6- and 12-month intervals	1. Create follow-up surveys and administer through email at 6- and 12-month intervals 2. Longitudinal analysis of personnel training and advancement	1. Develop a reflective protocol for instructors to use as they read through evaluations. 2. Use evaluation responses to better align course outcomes with course objectives.

3.1 Question 1: How Can Program Directors Ensure that Evaluation Instruments are Relevant to Course Content?

Evaluation Needs

Clear and Concise Course Objectives and Measurable Learning Outcomes for All Workshops/Courses

Course objectives are specific statements of what an instructor intends to cover through the duration of a particular course. Often, objectives are synonymous with goals of the course or program. Learning outcomes are more student-centered and focus on what the learner is expected to know, understand, and/or be able to do at the end of a period of learning and on how that learning should be demonstrated

(Moon 2002; Donnelly and Fitzmaurice, 2005). Rather than focusing on content being taught, learning outcomes focus on what the student has achieved and can demonstrate at the end of a learning activity (module, workshop, program, etc.). It is recommended that a small number of important learning outcomes (<9) are presented, instead of a larger number of superficial ones.

Clear and Concise Course Descriptions for All Workshops/Courses

Course descriptions provide prospective participants with a brief overview of course expectations. Descriptions should be less than 100 words and clearly define what the participant can expect to learn as a result of their participation. Descriptions also should include any prerequisites for participation.

Suggested Activities

Write New Descriptions for Each Workshop/Class Including Objectives and Measurable Learning Outcomes

Course descriptions should be revised to follow a common format. Descriptions should be brief and focus on what students will learn by completing the course. Learning outcomes will be included with each description and include verbiage that expresses what participants will know, understand, and be able to do at the completion of the course.

Basic knowledge of Bloom's Taxonomy can aid in the development of measurable learning outcomes (Bloom, 1956). Figure 3.1 presents the various levels of Bloom's Taxonomy, while Table 3.2 outlines action verbs to aid in the creation of measurable learning outcomes. While this list is not exhaustive, it provides several examples for each level of the taxonomy. It should be noted that understanding is difficult to measure, and learning outcomes that focus on what students should understand at the end of a course should be written using more specific verbs.

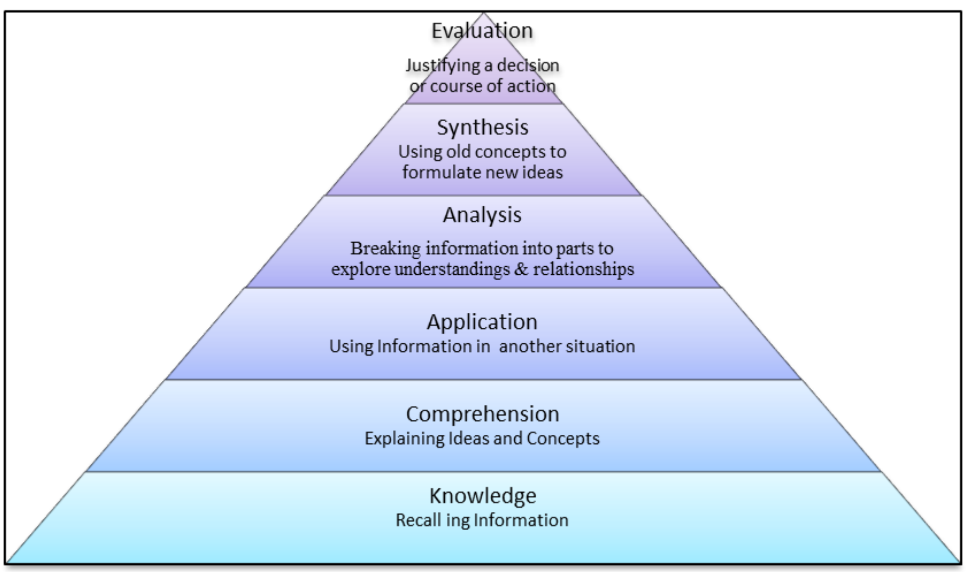

Figure 3.1 Blooms Taxonomy

Table 3.2 Objective Verbs Organized by Bloom's Taxonomy Level (Pearson, 2007)

Knowledge		Comprehension		Application	
Count	Recall	Classify	Illustrate	Administer	Develop
Define	Recite	Conclude	Interpret	Assess Choose	Discover
Describe	Reproduce	Describe	Locate	Collect	Establish
Find	Select	Discuss	Paraphrase	Compute	Imitate
Identify	Sequence State	Estimate	Restate	Construct	Implement
Label	View	Explain	Review	Contribute	Participate
List	Write	Give examples	Summarize	Demonstrate	Relate
Match				Determine	Transfer
					Utilize
Analysis		**Synthesis**		**Evaluation**	
Break down	Diagram	Adapt	Model	Argue	Judge
Characterize	Differentiate	Collaborate	Modify	Assess	Justify
Classify	Distinguish	Combine	Negotiate	Conclude	Predict
Compare	Infer Prioritize	Compile	Organize	Critique	Prioritize
Contrast	Recognize	Compose	Produce	Decide	Prove
Correlate	Relate	Construct	Progress	Defend	Rank
Debate	Separate	Create	Propose	Evaluate	Reframe
Deduce		Design	Rearrange	Interpret	Support
		Develop	Reconstruct		
		Facilitate	Reorganize		
		Initiate	Revise		
		Integrate	Validate		
		Invent			

Other questions to ask when writing course objectives include:

- Does the outcome contain an active verb? (See Table 3.2)
- Is the outcome observable?
- Is the outcome measurable?
- Does the outcome address essential learning?
- Does the outcome address essential knowledge and/or skills a participant should have at the completion of the workshop?
- Are the outcomes consistent with professional standards and overall program goals?
- Is the outcome written in language that relevant audiences will understand?
- Is the total number of outcomes reasonable?

Figure 3.2 is an example of a well-written course description currently used by Utah LTAP. Notice that description of the course is short and the list of objectives are students-centered and measurable. This template is useful for all instructors writing course descriptions. Figure 3.3 contrasts a current Utah LTAP course description with a revised version based on the guidelines presented above.

Road Safety Audits

Description

Participants in this training will learn how to improve transportation safety by applying a new proactive approach "Road Safety Audits (RSA)." This technique provides an examination of a future or existing roadway by an independent, qualified audit team. The RSA is a way for your agency to improve safety and to communicate to the public how you are working toward accident reductions.

Objectives

- Upon completion of the course, participants will be able to:
- Express the road safety audit terminology
- Perform a simple road safety audit, as a member of a team (optional)
- Assess the benefits of the road safety audit on a statewide basis

Who Should Attend

- Federal/State/Local Transportation Personnel
- Law Enforcement
- Risk Managers
- Local Safety Managers

Figure 3.2 Current Utah LTAP Description for Road Safety Audit Workshop (Utah LTAP, 2014)

Maintenance Math **Description** Objective: • Reviewing basic math calculation for length, area, volume, and weight • Using a calculator in math solutions • Practical applications of math to common maintenance problems • Training in the use of the "Inspectors Job Guide & Highway Maintenance Tables" • Calculating application rates for maintenance road projects • Calculating material quantities • Calculating trench backfill around pipes • Calculating stockpile quantities A copy of the Inspector's Job Guide & Highway Maintenance Tables is included in the workshop.	**Maintenance Math** *Description* Learn how to improve basic math skill required for maintenance jobs. A copy of the Inspector's Job Guide & Highway Maintenance Tables is included in the workshop. *Objectives* Upon completion of the course, participants will be able to: • Review basic math calculations for length, area, volume, and weight • Use a calculator in math solutions • Apply math to common maintenance problems • Use the "Inspectors Job Guide & Highway Maintenance Tables" • Calculate application rates for maintenance road projects • Calculate material quantities, trench backfill around pipes, and stockpile quantities

Figure 3.3 Current Utah LTAP Description for Maintenance Math vs. Revised Description

3.2 Question 2: How Should Evaluations Be Developed and Conducted to Maximize Links Between Participants Needs and Associated Skills?

Evaluation Needs

Evaluation Questions that Reflect Each of Kirkpatrick's Four Levels of Evaluation

Donald Kirkpatrick (1959) proposed a four-level model of criteria for evaluating training: learner reactions, learning, job application, and observable results. This is the model on which Utah LTAP bases all course evaluations for their training. The four levels are outlined below and discussed as they relate to current evaluations given to course participants.

Level 1: Reaction. Reaction is a measure of customer satisfaction; more specifically, how well the participants liked the training program (Kirkpatrick, 1959). This level of evaluation usually is conducted through a basic comment sheet that allows participants to rate structure of the training, content presented, and instructor's ability to relay the information. Kirkpatrick and Kirkpatrick (1994) argue that focusing on customer satisfaction is important not only to determine whether or not training programs are helpful to participants, but also to ensure that participants are interested in learning. The current evaluation form offered to participants at the end of each LTAP sponsored training focuses heavily on participant reaction. Participants are asked to rate several aspects of the course content, instructor, and structure, and are provided with an opportunity to offer suggestions for course improvement.

Level 2: Learning. While important for the planning of future training sessions, customer satisfaction ratings cannot account for actual learning. Kirkpatrick and Kirkpatrick (2005) define learning in a narrow way and focus only on three dimensions: understanding the information taught, developing and/or improving skills, and changing attitudes (pg. 5). They further argue that learning evaluations should be targeted to specific objectives of the program. The course offered by Utah LTAP are diverse in makeup however, the same metrics are used for evaluating each course. The current evaluation form asks a single question about participant learning. Question 13 reads: "What was the most useful thing you learned in today's workshop/training sessions?" This question focuses on self-reported perceived learning over actual learning. Kirkpatrick (1959) suggests evaluating learning through pre/post demonstrations, paper and pencil tests, and/or affective evaluation instruments. These instruments should be tailored to specific objectives of each course. Currently, the courses required for certification (E.g. Flagger courses) do require exit tests to evaluate student learning after the completion of the course. While these tests do measure student competency, they do not necessarily account for the source of knowledge.

Level 3: Behavior. Transfer of training from the classroom to on-the-job performance is a key element to evaluating whether or not training exercises are useful. It is important to measure behavior in terms of whether or not it has changed and, if it has not, the reasons behind failure to change. Kirkpatrick and Kirkpatrick (2005) suggest that a sampling approach should be used, since it is impractical to evaluate all programs in terms of behavior. They suggest using several guidelines for gauging behavior changes including: reviewing behaviors before and after training occurs to determine what the participant is doing differently, allowing time for the behavior to actually change, surveying multiple individuals (trainee, subordinates, bosses), and repeating the process at set intervals as appropriate. Practically, behavior changes are most appropriately measured through comparisons of job performance evaluations before and after individuals have attended each course. Arthur, Bennett, Eden, and Bell (2003) found, through a meta-analysis of training transfer studies, that the post-training environment affects the display of learned skills. Environmental favorability is the extent to which the transfer or work environment is supportive of the application of new skills and behaviors learned or acquired in training (Noe, 1986; Peters & O'Connor, 1980). Learned skills will only transfer into job situations when employees are given the chance to use knowledge and perform skills they learned during the trainings (Arthur et al., 1998; Ford et al., 1992). The only way to evaluate this is to ask specific questions focusing on behavior and, as discussed below, results. The current evaluation form used for all LTAP courses includes one question focusing on behavior. (Question 12: What will you do differently in your job as a result of this training?) This question allows respondents to select from one of three areas or choose "not applicable." It also places focus on what the respondent plans to do, rather than what they actually do or are allowed to do, when they return to their job.

Level 4: Results. The final level of Kirkpatrick's model focuses on overall desired results of the training. The overall goal of the LTAP training courses is to provide participants with the knowledge and skills necessary to increase their level of job performance, increase their confidence in their job performance, and become upwardly mobile in the organization. This level is not measured with end-of-course evaluations. Instead, it is more appropriate to survey past participants at set intervals after each training course. Proposed follow up evaluations can be administered to workshop participants at 6- and 12-month intervals as a way to gauge Levels 3 and 4 of this model.

A Way to Gauge Transfer of Training

Measuring transfer means assessing use of the knowledge and skills learned through training on the job through observation, checklists, evaluation of action plans or another method after a significant period of time, usually 30, 60, or 90 days, has passed. This is often time consuming, requires multiple resources, and stakeholder support. Without transfer of knowledge and skills, learning cannot influence job performance. If the goal is that participants will transfer their training to the workplace, three conditions must be met (Mosel, 1957):

- The content of the training must be useable.
- Trainees must learn the content.
- Trainees must be motivated to change behavior on the job in order to apply new skills.

According to the learning measurement report conducted by Bersin and Associates (2006), the majority of employers said they frequently measured learner satisfaction and cognitive gains after a training session and 76% believe that measuring transfer of training is valuable, and only 14% of those employers said they measured whether training transfer had occurred. Only 10% of the same employers said they tracked actual contribution the training knowledge and skills made to improved performance.

Suggested Activities

Revise the Current Post-workshop Evaluation Survey

Revising the current workshop evaluation survey to include practice-based criteria, considering the checklist presented by MacDonald (2011), will provide trainers and planners with more thorough information to aid in the planning of future sessions and provide a baseline for determining how training in transferring to the field. Proposed evaluation indicators are presented below. Note that questions 11 and 12 allow trainers to customize evaluations to specific courses, as needed.

Job Title: ____________________

1. Including this one, how many workshops offered by LTAP have you participated in?..........................1/2/3/4/More than 4

2. What were your objectives in participating in this workshop?
   a. Job related/required
   b. Re-certification/Review
   c. General Training/Basic Knowledge
   d. Safety/Operation Techniques
   e. Other (specify below)

Reaction

3. Was the workshop topic adequately covered today?.................................Strongly Agree/Agree/Neither Agree or Disagree ....Disagree/Strongly Disagree

4. Rate the instructor's presentation skills ....Excellent/Good/Average/Poor

5. Rate the instructor's knowledge of the subject ....Excellent/Good/Average/Poor

6. Rate the instructor's ability to use a variety of teaching strategies during instruction..............Excellent/Good/Average/Poor

7. Rate the instructor's responsiveness to your questions asked during the day ....Excellent/Good/Average/Poor

8. Rate the overall length of the workshop/training session..Too long/Just Right/Too Short

Learning

9. Were your objectives met?.. Yes/No

10. Did the organization of the workshop help you learn the material?... Yes/No

11. Do you have a better understanding of:
   a. [Topic A].. Yes/No
   b. [Topic B].. Yes/No
   d. [Topic C].. Yes/No
   c. [Topic D].. Yes/No

12. Did the course give you ideas about how to:
   a. [Application objective 1]... Yes/No
   b. [Application objective 2]... Yes/No
   c. [Application objective 3]... Yes/No

13. What was the most useful thing you learned in today's workshop/training sessions?

Behavior

14. Rate the usefulness of the content as relevant to your needs/job.....................................Excellent/Good/Average/Poor

15. What will you do differently in your job as a result of this training?

Overall

16. Overall, how would you rate the course?...1 2 3 4 5

Figure 3.4 Proposed Evaluation Survey

Create Follow-up Surveys and Administer Through Email at 6 and 12 Month Intervals

Follow-up surveys allow trainers and course planners to keep track of career progress of course participants. One challenge of conducting follow-up evaluations is the logistics of delivering evaluations and ensuring participants actually complete them. This may be mitigated by emailing short follow-up surveys to participants at 6- and 12-month intervals. If, after five days, surveys are not completed reminder emails should be sent. Programs such as Survey Monkey (surveymonkey.com) can streamline data collection.

Job Title: ______________________________

1. Course Title: ______________________________
2. Since the completion of this course, how many workshops offered by LTAP have you participated in?
   a. 0
   b. 1
   c. 2
   d. 3
   e. More than 3
3. Since the completion of this course, have you been eligible for a promotion? .... Yes/No
   a. Since the completion of this course, have you received a promotion? .... Yes/No
4. Do you use the following information presented in the course in your current position (A=Always, S=Sometimes, N=Never):
   a. [Application objective 1] .... A/S/N
   b. [Application objective 2] .... A/S/N
   c. [Application objective 3] .... A/S/N
5. As a result of this workshop, what have you done differently in your job?
6. Would you recommend this workshop to others in positions similar to yours? .... Yes/No

Figure 3.5 Follow-up Survey (Sent at 6 Months and 12 Months Post-training)

3.3 Question 3: How Can the Use of Evaluation Feedback Be Incorporated into Employee Performance Appraisals?

Evaluations Needs

A Way to Gauge Transfer of Training

Program impact is the extent to which long term, sustained changes occur in a target population (Boulmetis & Dutwin, 2011, 7). As outlined above, measuring if and how participants use what they have learned in training workshops in the course of their jobs is important not only to justify requiring participation, but also to justify spending money on planning and implementing training programs. When training is strategically linked to organizational goals, learners can see how their training transfer can improve overall organizational performance. Work environment influences whether or not and how training is transferred to the job site. Influencing factors include employers who:

- encourage a supportive transfer climate
- hold learners accountable for their learning
- involve managers and peers to support training transfer
- provide learners with opportunities to practice their new skills in the work setting (Hutchins and Burke, 2015)

Suggested Activities

Create Follow-up Surveys to Administer Through Email at 6- and 12-Month Intervals

Follow-up surveys are outlined in the previous section.

Longitudinal Analysis of Personnel Training and Advancement

Opportunities for participants to have their new knowledge and skills evaluated as part of regular employee evaluations will help create a working environment that supports training transfer. Over time, and as individuals participate in more workshops, these evaluations should reflect knowledge gains. Performance evaluations also will allow trainers to track upward job mobility of participants.

3.4 Question 4: How to Use Systematic and Relevant Assessment Cycles for Program Improvement

Evaluation Needs

Provide Trainers with the Opportunity to Review and Reflect Upon the Evaluations from Their Courses

One goal of program evaluation is to help improve program content and delivery. In other words, do the activities of a program produce the desired effect? Program success is contingent on continuous feedback. Rather than proving that a program was good or bad, program evaluation verifies that the program is running as originally planned, identifies strengths and weaknesses, and allows for feedback to adjust the program accordingly (APA, 2012). It is equally as important for planners and trainers to consider what is working in the various courses and what is not working so they can adjust their courses/programs accordingly.

Suggested Activities

Develop a Reflective Protocol for Instructors to Use as They Read Through Evaluations

Providing workshop instructors with a structured way to reflect upon their courses as they read through evaluations will give instructors with various levels of teaching experience a framework in which to evaluate their courses. Figure 3.6 outlines an example course evaluation follow-up for instructors. As instructors review course evaluations, they should be strongly encouraged to consider the questions presented in the evaluation follow up. Honest answers to these questions will help instructors better tailor their teaching styles to their student needs and course goals. Further, these evaluation follow-up reflections may be paired with evaluations and follow-up surveys to help course planners determine changes needed to course content and goals.

As you read the evaluations, gather the necessary information to answer questions #1-4 below:

1. Name:
2. Workshop Title:
3. Workshop Date:
4. Experience with course:
5. Experience teaching LTAP workshops:
6. In what areas do you see a pattern of positive feedback from your students?
7. Do you see a difference in the type of positive comments you have received in regards to this course as opposed to others you have taught?
8. According to these evaluations, what areas of teaching might you improve?
9. What could you do to improve these aspects of your teaching in the future? Be specific.
10. Are there any isolated comments to which you would like to respond?
11. Summarize in just one or two sentences the overall portrait of your teaching depicted in these evaluations.
12. What will you continue to do in the future?
13. What will you do differently?

Figure 3.6 Instructor Reflective Protocol

Use Evaluation Responses to Better Align Course Outcomes with Course Objectives

Learning outcomes help instructors plan assessments and other measures needed to determine whether course goals have been met. Strong learning outcomes, as outlined in the above sections, not only help to direct courses, but also to motivate students. Instructors and program directors must use information from course evaluations and follow-up surveys to inform future teaching decisions. This teaching-learning cycle is presented in Figure 3.7. The cycle begins with program (course) implementation. In this phase, students complete courses designed with specific objectives and outcomes. As part of the planning, instructors and program directors should consider how they will measure success of the courses and program (Phase 2). Direct and indirect measures of success will allow instructors and program directors to determine what they consider important metrics showing students have achieved course and program objectives. At the completion of each course, results should be collected (Phase 3). This includes all course evaluations and any appropriate follow up surveys. Phase 4 requires instructors and program directors to reflect upon this information so they may make any changes needed to individual courses or entire programs (Phase 5). The cycle repeats each time a course is taught and allows courses and instructors to better meet the needs of participants.

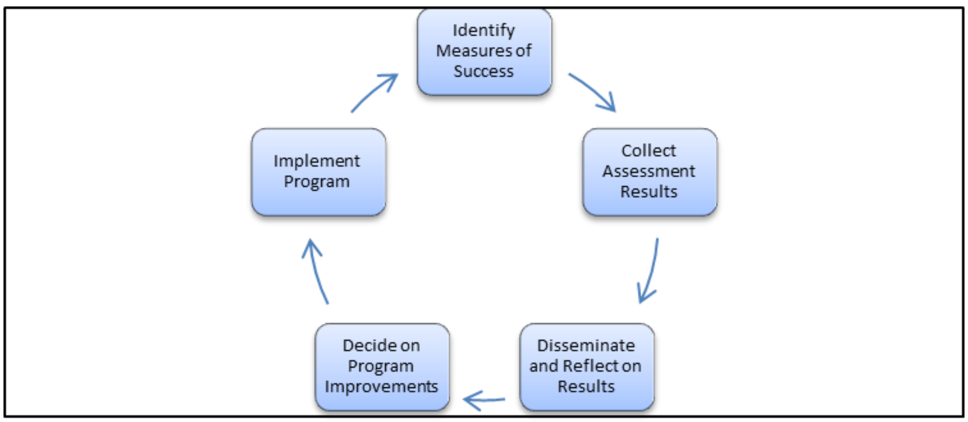

Figure 3.7 Teaching-Learning Cycle

4. CONCLUSION

Throughout the United States, departments of transportation spend millions of dollars each year on continuing education and professional development. Current evaluations fail to tie responses to course objectives and often do not evaluate how participants use their knowledge in the field. Systematic evaluation of these training workshops and programs will help program directors, planners, and trainers ensure that the training they are providing is applicable to needs of the workforce. Stronger evaluation instruments, as recommended, will ensure that training courses are meeting the stated objectives and that participants believe they are provided with information that may help them better complete their job functions and ultimately become upwardly mobile in their careers. Using evaluation data to revise training programs, where necessary, will make them more cost-effective and useful to participants. Guidelines outlined above will help evaluators focus on Kirkpatrick's four levels of evaluation in meaningful ways and in turn, allow training programs to become refocused on current needs of the workforce.

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