

Medicare & Medicaid
Fraud & Abuse Training
Evaluation Tools
Information Manual

Prepared for
The Medicare/Medicaid Compliance Officer
Mental Health Facility

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Executive Summary

As a participating provider, Mental Health Facility (“MHF”) is governed by all rules and procedures established by the U. S. Department of Health and Human Services’ Centers for Medicare & Medicaid Services (“CMS”) for providing patient care and billing for those services. Specifically, MHF participates in the following Medicare and Medicaid programs:

Medicare/Medicaid Program	Corresponding MHF Patient Services
Part A	Acute In-Patient Psychiatric Care
Part B	Ancillary Charges when Part A is exhausted; <i>i.e.</i> , lab work, x-rays, injectable drugs, EEG Professional charges for treatment by physicians
Part D	Medicare Prescription Drug Program

On April 25, 2006, CMS issued a watershed directive that requires fraud, waste, and abuse compliance training for all employees of participating health care providers. Prior to release of the April 25th CMS guidance, reduction of fraud, waste, and abuse was already a high priority in Medicare Part D compliance. Numerous state and federal statutes are included under the umbrella of Medicare and Medicaid fraud, waste, and abuse regulations. Fines levied on health care providers that violate these regulations can be in the tens of thousands of dollars.

The purpose of this document is to describe training evaluation in general terms and provide specific details of the evaluation tools that were chosen to document completion of Medicare & Medicaid Fraud & Abuse training and its effectiveness at MHF. Additionally, this document contains suggestions for supplemental evaluations of training in terms of organizational Return on Investment that MHF may wish to implement in future facility-wide Cost Reports or Fiscal Budgets.

Identifying & Addressing Performance Gaps

*The gap between vision and current reality is also a source of energy.
If there were no gap, there would be no need for any action to move
towards the vision. We call this gap creative tension. ~ Peter Senge*

Organizations determine a need for employee behavioral modification as a direct result of employees' actions that deviate from organizational protocols and procedures. Blanchard & Thacker (2004) refer to this determination point as a "triggering event." The triggering event generally gives rise to a process known as a Needs Assessment. In some situations, however, a Needs Assessment is unnecessary.

Medicare & Medicaid Fraud & Abuse Training at Mental Health Facility ("MHF") is mandated by the federal government under 42 U.S.C. § 1395w-104 and 42 CFR § 423.504(b)(4)(vi)(H). The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires all Medicare Part D participating providers to have a program to control fraud, waste, and abuse. Participating providers must also have a comprehensive plan to detect, correct, and prevent fraud, waste, and abuse.

These federal compliance requirements were, collectively, the triggering event for the training described within the following document.

Planning and Implementing Training

*If you don't know where you are going, you will
probably end up somewhere else. ~ Lawrence J. Peter*

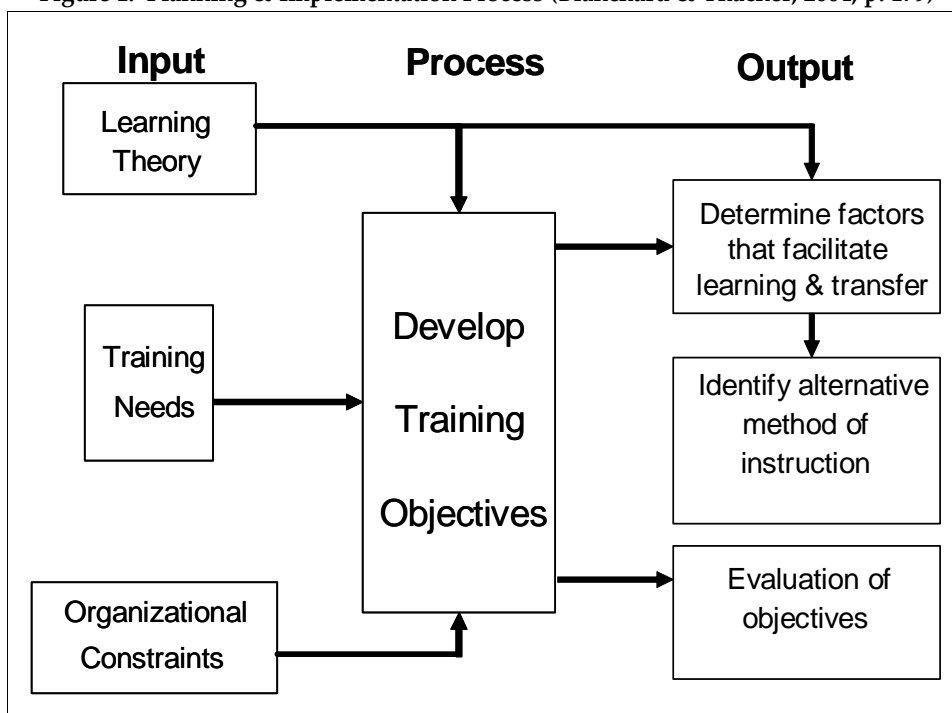
The first step in planning training is design: identify the goals and objectives.

The second step is development: map out the lessons, identify appropriate teaching methods, and acquire or create instructional media. Once training has been planned, it can be implemented.

Blanchard & Thacker (2004) mapped the planning and implementation process, as shown in Figure 1. They emphasize the necessity for setting objectives for evaluation of the training event, not just evaluation of the transfer of learning.

Throughout the planning and implementation phases, curriculum designers and instructional technologists must evaluate and revise at each major step. Goals and objectives may need revision if learners are unable to assimilate the material and apply it (a process described as transfer of learning). Lesson plans, methods, and media may require modification if they fail to deliver the necessary information and/or skill development opportunities to learners. Training implementation may require revision if the location, instructor, or other classroom-specific feature fails. The term “classroom” in this context refers collectively to sites where learning occurs.

Figure 1. Planning & Implementation Process (Blanchard & Thacker, 2004, p. 179)



Evaluating Training

I know not any thing more pleasant, or more instructive, than to compare experience with expectation, or to register from time to time the difference between idea and reality. ~ Samuel Johnson

Evaluators can not fully evaluate a training program unless they know what the training was developed, designed, and implemented to accomplish. Training objectives, derived from goals, are established to

- describe the performance learners should exhibit after training;
- measure learner performance and competency;
- determine what gets taught and how training occurs; and,
- provide methods to evaluate success of the training.

As shown in Figure 2, training objectives are action statements containing descriptive words open to limited interpretation and conveying explicit intent. Objectives must be specific, measurable, attainable, realistic, and time-specific. A training objective has four parts:

1. Performance - a statement describing what the learner should be able to do;
2. Conditions - circumstances under which the performance occurs;
3. Criteria(on) - definition of an acceptable level of performance; and,
4. Audience - the targeted learners.

Figure 2. Example Learning Objective

At the conclusion of training, trainees will prepare a standard departmental office supply order form containing five items with 100% accuracy in less than ten minutes.

Most training courses have a number of objectives, and the overall success or failure of a training course is based on measuring whether learners meet those objectives. Evaluators must ask questions such as these:

- Were training program objectives met?
- Were learners' personal objectives met?
- What specific information or skills did learners receive or reinforce?

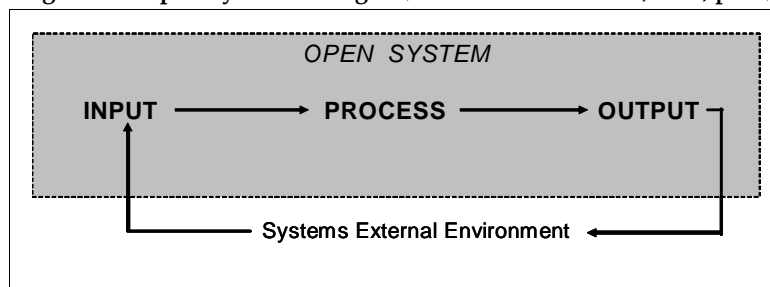
- What level of commitment did learners show to applying new skills and information on the job?
- What level of retention by learners was evident from their behavior (modified or not) upon returning to the job?
- What successes or failures in behavioral modification were noted by supervisors when employees returned to their jobs?
- What level of Return on Investment (ROI) in the training activity has the organization experienced , either in terms of increased satisfactory performance or actual financial gain?

Evaluating the Training Process

As stated above, all evaluative determinations can not wait until training is completed. Clark (2005) maintains the entire training process must be evaluated at each step of the planning, preparation, delivery, and even evaluation of training. He describes two types of evaluation: "Assessment is the measurement of the practical results of the training in the work environment; while validation determines if the objectives of the training goal were met."

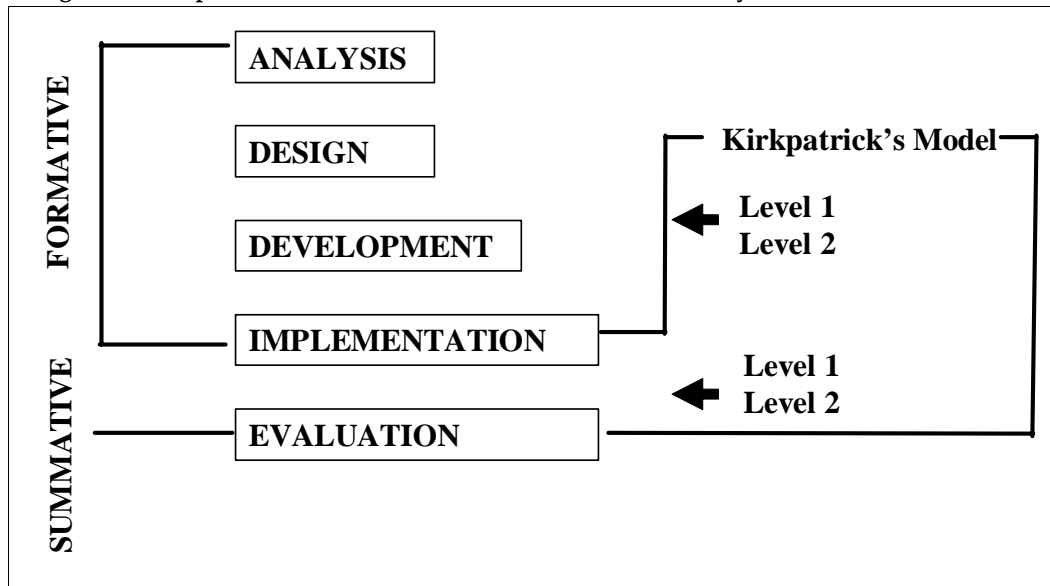
Blanchard & Thacker (2004) describe an "open systems design," which is graphically represented in Figure 3. Effective training evaluation is an open system, because the evaluation is constantly under revision, as put forth by Clark (2005).

Figure 3. "Open Systems Design" (Blanchard & Thacker, 2004, p. 19)



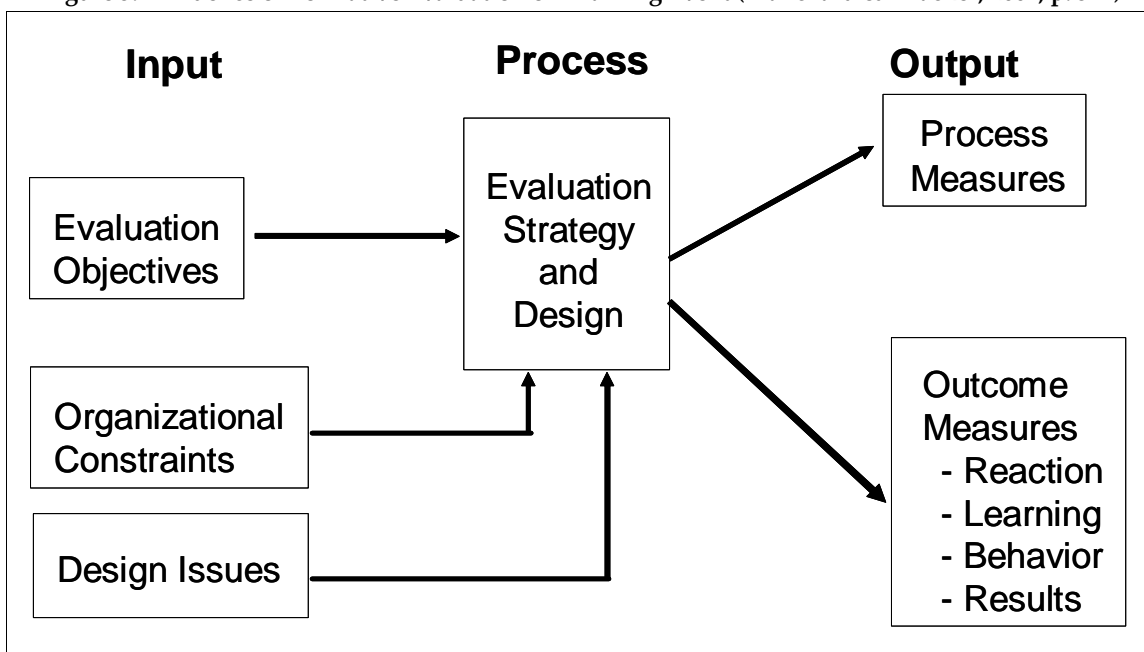
The Open System approach differs from the one proposed by Donald Kirkpatrick (1975) and cited widely as a classic evaluation paradigm. In Kirkpatrick's model, shown in Figure 4, evaluation of training only begins at the Implementation, or delivery, phase (Marshall, 2005). Evaluation at this point is summative, or external to the training event. It gives no consideration to the preliminary phases of Analysis, Design, or Development. Rather, such evaluation is only concerned with measuring transfer of learning as evidenced by learner responses, observable changes in job behavior, and organizational Return on Investment.

Figure 4. Kirkpatrick's Four Levels of Evaluation as Modified by Marshall (Marshall, 2005)



Marshall (2005) supports Clark's position that formative (internal) evaluation is necessary at each phase of the training event in order to ensure the questions raised previously (page 7, *supra*) are answered timely and in the proper sequence. Blanchard & Thacker (2004) published a graphic representation, shown in Figure 5, identifying the influence of formative evaluation on the analysis, design, development, implementation, and evaluation of a training event.

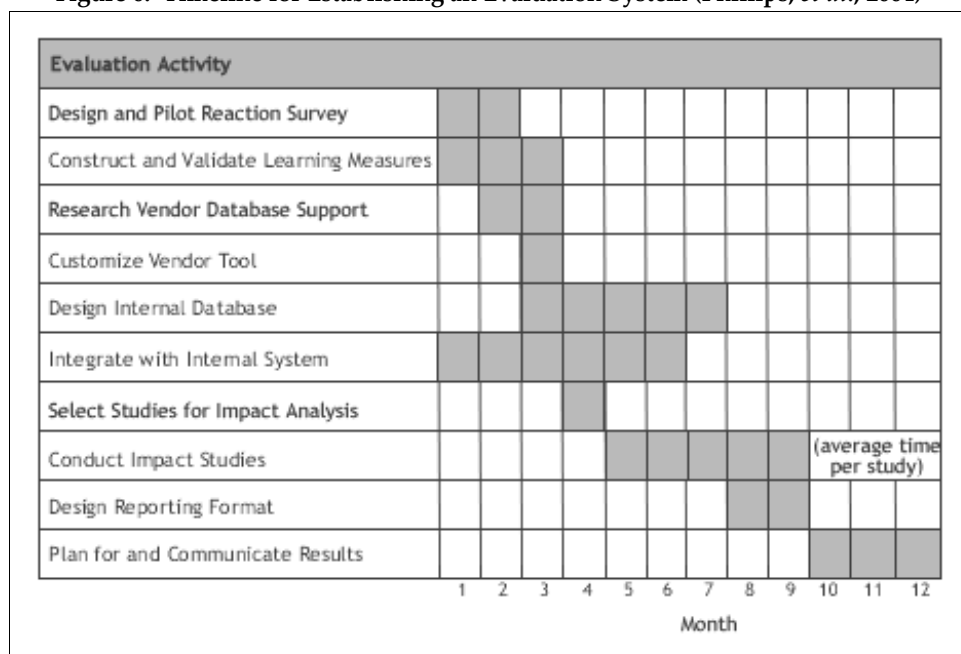
Figure 5. Influence of Formative Evaluation on Training Event (Blanchard & Thacker, 2004, p. 344)



Phillips, Phillips & Hodges (2004) discuss time requirements for evaluating training, but they only address summative evaluations performed after the training event. Figure 6 shows a sample timetable for evaluation these authors derived from their research. They write,

“Planning for a major study should take no more than a day, and the design of the instruments can vary depending on the number of instruments and method of data collection. Data collection is the most variable part of the analysis. Simple data collection instruments, such as questionnaires, are inexpensive and involve less time to implement. Other instruments, such as observation, interview, and focus groups are more time consuming and can add considerably to the time estimates to this table.”

Figure 6. Timeline for Establishing an Evaluation System (Phillips, *et al.*, 2004)



Phillips, Phillips & Hodges (2004) suggest developing an organized, functional evaluation system within an organization or department take place over a full year's time. Unfortunately, many organizations do not have the resources to spend that much time developing a model because evaluation results are needed relatively quickly.

Phillips, Phillips & Hodges (2004) also discuss methods for reducing the time required to establish evaluation protocols and procedures. Their observations include the following:

- Evaluation processes should be automated as much as possible.
- Many computer software applications are available for managing large projects.
- Designs can require an inordinate amount of time and resources.

- The design process should be automated, if possible.
- Evaluators should use standardized tools and templates, if possible.
- Organization impact and ROI analyses should be limited to training considered “significant, critical, expensive, highly visible, and time consuming,” thus reducing the possibility of extensive drains on organizational resources.

Figure 7. Budgeting for Evaluation (Phillips, Phillips & Hodges, 2004)

Evaluation Item	Cost
Salaries and Employee Benefits for L&D Staff (No. of staff x avg. salary x employee benefits factor x no. of hours on evaluation project)	
Meals, Travel, and Incidental Expenses	
Participant Costs (for time involved and evaluation)	
Fees and Licenses	
Office Supplies and Expense of Printing Materials	
Outside Services	
Technology	
General Overhead Allocation	
Other Miscellaneous Expenses	
Total Evaluation Costs	

As a result of their research, Phillips, Phillips & Hodges (2004) developed a budget calculation form for training evaluators’ use, shown in Figure 7. These authors note that total cost of measurement and evaluation could be as much as 3% to 5% of the training budget, especially in those cases where data are collected from every course and several programs are carried through to a comprehensive analysis of Return on Investment.

Interestingly, Phillips, Phillips & Hodges (2004) estimate the total direct and indirect costs incurred in processing one student’s responses can be as much as \$2.00 per questionnaire. For a small organization, such costs generally prohibit extensive data analysis. Yet, the authors conclude the “value of an effective, efficient, state-of-the-art evaluation system is priceless.”

Figure 8 shows a breakdown of estimated, representative costs associated with training evaluation using Phillips, Phillips & Hodges’ (2004) model.

Figure 8. Typical Costs for Selected Evaluation Items (Phillips, et al., 2004)

Evaluation Item	Approximate Cost
Total cost of measurement and evaluation as a percentage of learning and development budget--best practice	3%-5%
External cost of processing one reaction questionnaire	\$2.00
Application/behavior change study (internal)	\$2,000-\$3,000
Application/behavior change study (external)	\$15,000-\$20,000
Impact/ROI study (internal)	\$5,000-\$10,000
Impact/ROI study (external)	\$15,00-\$50,000
Cost of an impact/ROI study as a percentage of project costs	5%-10%
Fee to attend ASTD two-day workshop on measurement, evaluation, and ROI	\$850*
Fee to attend ASTD one-day workshop on bottomline on ROI	\$450*
Cost of SurveyPRO (for questionnaire design and administration)	\$1,500
Fee for certification in the ROI Methodology	\$2,995
Cost to the join the ASTD ROI Network	\$75*
Cost of study/reading materials	\$62.50
Value of an effective, efficient, state-of-the-art evaluation system	Priceless

* Prices reflect ASTD membership

Four Levels of Training Evaluation

*Don't measure everything.
Measure what really matters. ~ Darin E. Hartley*

Clark (2005) describes training evaluation as having two distinct forms: “Assessment is the measurement of the practical results of the training in the work environment, while validation determines if the objectives of the training goal were met.”

In 1959, Donald Kirkpatrick published his seminal dissection of training evaluation. Kirkpatrick's model has four levels, identified below (Clark, 2000):

1. Reaction – measures how participants feel about the training event, including the material, instructor, and environment. Many Level 1 Evaluations now contain demographic questions, so marketing statistics can be gathered in conjunction with training evaluation. Level 1 Evaluation occurs near the end of, or immediately following, training. Mental Health Facility's ("MHF") training department routinely employs Level 1 evaluations as a follow-up to formal learning activities to determine participants' impressions of a particular teaching resource or method.
2. Learning – measures how, and how much, participants change their attitudes, improve their knowledge, and increase their skills and/or abilities as a result of the training event. Level 2 Evaluation occurs during or immediately after the training event. At MHF, Level 2 Evaluations are exams, quizzes, and competency assessments given to employees following training activities.
3. Behavior – measures observable changes in behavior resulting from the training event. Level 3 Evaluation traditionally occurs in the workplace several weeks to a few months following training to determine if learners retained and now apply their new or refreshed knowledge, skills, and abilities. In most workplaces, including MHF, this is done through a performance evaluation.
4. Results – measures organizational results arising from learners' participation in the training event. This is generally referred to as a determination of the Return on Investment an organization can calculate as directly or indirectly resulting from training.

Kirkpatrick's original model is still, more than forty-five years later, the *de facto* standard for evaluating training activities. As discussed previously, Kirkpatrick's model does not provide for

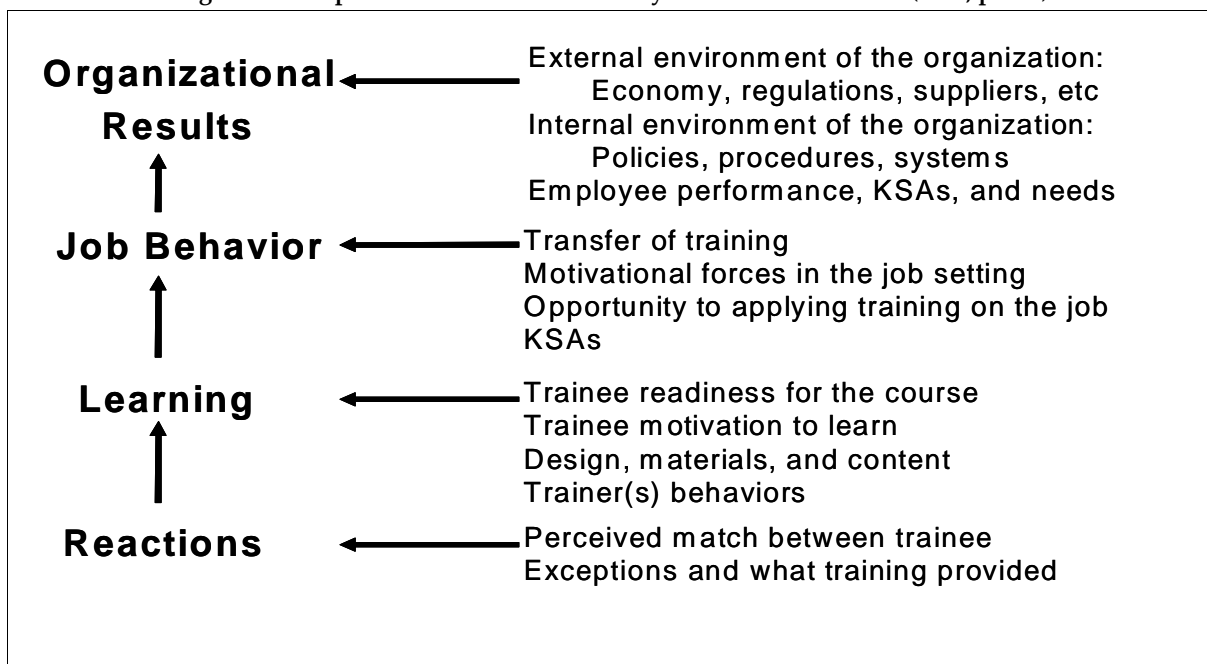
formative evaluations, because all of the evaluations in his four levels take place during or after the training event.

Modern models, including those published individually or jointly by authorities such as Scriven, Flagg, Seels, Glasgow, Dick, Carey, and Tessmer (cited in Dabbagh, 2005) and Marshall (2005), incorporate formative evaluations during the analysis, design, development, and implementation phases of training. Marshall (2005) makes an excellent case for the use of formative evaluations at each production step of the training to ensure that all stakeholders – directors, managers, supervisors, trainers, subject-matter experts, and even a sample of the targeted learner population – “buys-in” and endorses the training. Otherwise, the curriculum designer or instructional technologist may discover the developed product is not in line with the interests and needs of every stakeholder.

Figure 5 (*see* page 6) contains Blanchard & Thacker’s (2004) graphical representation of the training evaluation process. The authors incorporate Kirkpatrick’s model, as shown in Figure 9.

Since his original four-level thesis was published in 1959, Donald Kirkpatrick has continued to revise and update his model. Hundreds of articles, books, and Internet Web sites discuss the details of Kirkpatrick’s four levels. Table 1 contains a short description of the levels that expands

Figure 9. Kirkpatrick’s Model as Refined by Blanchard & Thacker (2004, p. 366)



on Blanchard & Thacker’s (2004) graphic in Figure 9. Table 1 also contains representative advantages and disadvantages for each of Kirkpatrick’s levels.

Table 1. Kirkpatrick's Four Levels of Evaluation

<i>Level</i>	<i>Definition</i>	<i>Advantages</i>	<i>Disadvantages</i>
1 – Reaction	Measures how well participants have mastered the course objectives. Can include tests of performance before and after the course.	Gives fast feedback on participants' satisfaction with training material, facilitators, and environment.	Measures participants' opinions about the course. This is the most common way to evaluate a course and provides a measure of customer satisfaction.
2 – Learning	Measures how well participants have mastered the course objectives. Can include tests of performance before and after the course.	Compared to reactions, this provides more compelling evidence of whether a training program works.	Compared to Level 1, requires more time, funding, and expertise to develop and implement valid measures of learning.
3 – Transfer to the job	Measures how the knowledge, skills, and values from a course are used on the job. Typically measured 3 to 6 months after training.	Provides stronger evidence that a training investment has the desired impact.	Compared to Levels 1 and 2, requires more time, funding, and expertise to develop and implement valid measures of transfer.
4 – Organizational impact	Measures performance improvement, quality improvements, and cost savings to an organization.	Provides the strongest possible evidence that a training program has the desired impact on an organization.	Substantial levels of investment and expertise are required to implement this level of evaluation successfully.

What Level of Training Evaluation Does MHF Medicare & Medicaid Fraud & Abuse Training Require?

There are no simple rules for determining which level of training evaluation to use for a particular program. For complex evaluations, the best guidance usually comes from experts in training evaluation. However, the following considerations are an excellent starting point (NIOSH, 2005):

Question 1: Who will be interested in the results?

- (Critical) Identify all stakeholders – those who will be interested in the results.
- Examples: trainers, managers, organizations, government agencies

Question 2: What questions will be answered?

- Identify questions of particular importance for the specific evaluation – questions one can expect to answer upon completion of the evaluation.
- Examples:
 1. Have people increased their knowledge and/or skills?
 2. Did the information that was learned in training transfer to the workplace?

Question 3: What resources are available for evaluating the training program?

- Determine what resources are currently available and/or what kinds of resources can be obtained easily, if necessary.
- Examples: money, time, personnel, equipment, materials

Question 4: What method(s) will be used to gather information?

- Use a simple form, such as the one shown in Figure 10, to organize data as it is collected.

Figure 10. Sample Form for Identifying Training Evaluation Data Collection Methods

Data Collection Method	Performed (circle choices)
1	Before, During, or After Training
2	Before, During, or After Training

Level 1 (Reaction) Evaluation

Background

A Level 1 Evaluation measures participants' emotional and intellectual reactions to training activities and events. At MHF, as in most training environments, Level 1 Evaluations are commonplace, both in classroom environments and venues such as presentations made to community groups. Often, especially in the context of a government agency or not-for-profit community organization, Level 1 Evaluations also request demographic data (*e. g.*, age, ethnicity, education level, zip code) for use in program compliance monitoring or subsequent marketing.

In *Evaluating Training Programs: the Four Levels*, Kirkpatrick (1994) provides the following guidelines for creating a Level 1 Evaluation:

- Determine what you want to find out.
- Design a form that will quantify reactions.
- Encourage written comments and suggestions.

The benefits of a Level 1 Evaluation to a curriculum designer, instructional technologist, or training evaluator include the following:

- Get 100 percent immediate response.
- Get honest responses.
- Develop acceptable standards.
- Measure actions against standards, then take appropriate action.
- Communicate reactions as appropriate.

In a training analysis prepared for the U. S. Department of Transportation, Arthur Andersen Co. recommended the following protocols for Level 1 Evaluations that are universally applicable (DOT, 2005):

- 100 % of courses should be evaluated at this level.
- Systematically assess the reactions of training participants and faculty.
- Develop a standard set of questions.
- Develop norms.
- Develop a format for course-specific questions.
- Balance quantitative and qualitative sections of the training questionnaire.

Creating a Level 1 Evaluation

Table 2 contains six steps for developing a Level 1 Evaluation adapted by the U. S. Department of Transportation (2005) from *Diversity Training Evaluation Toolkit*, published in 1994 by the U. S. Federal Aviation Administration.

Table 2. Six Steps for Developing a Level 1 Evaluation

<i>Step</i>	<i>Procedure</i>
Step 1 Plan	<ul style="list-style-type: none"> • Most Level 1 evaluations use a rating scale of 1-5. <ul style="list-style-type: none"> • This makes it easier to score and compare with other individuals and classes. • The form can also include space for personal reactions to the course or instruction.
Step 2 Select Tool	<ul style="list-style-type: none"> • Based on how much information is needed, select an existing Level 1 evaluation instrument, or create a new form.
Step 3 Adapt Tool	<ul style="list-style-type: none"> • Modify content: <ul style="list-style-type: none"> • Reword, delete, or add items to accomplish evaluation goal(s). • Modify the format: <ul style="list-style-type: none"> • Change rating scale items to open-ended questions, or <i>vice versa</i>, depending on kind of information desired. • Student reactions: <ul style="list-style-type: none"> • To obtain general reactions, ask open-ended questions. • To obtain specific reactions to an objective or type of instruction, ask detailed questions.
Step 4 Implement	<ul style="list-style-type: none"> • Make enough copies for every student. • Assure students that the evaluations will be handled professionally and that student comments remain anonymous. <ul style="list-style-type: none"> • Students must understand that their answers should be frank and honest, and results will be used to plan future training programs. • When practical, someone other than the trainer should distribute and collect these forms. • Make sure every student completes the form.
Step 5 Analyze	<ul style="list-style-type: none"> • Rating scales: <ul style="list-style-type: none"> • For each item, count the number of responses to each rating and find the average. • Short answer questions: <ul style="list-style-type: none"> • Review the comments, categorize them based on similarities, and write a brief summary.
Step 6 Report	<ul style="list-style-type: none"> • Write a short "Training Evaluation Report" summarizing the results (<i>see</i> page 33). • Always compute mathematical averages of students responses, even if it is necessary to convert them to numbers. • If someone gives a rating outside the limits (<i>e.g.</i>, 10 on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score). • Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them. • Send copies of the report to the trainer, the trainer's supervisor, and to the organization that funded the training.

Level 1 Evaluation for MHF Medicare & Medicaid Fraud & Abuse Training

Table 3 contains a Level 1 Evaluation form designed for use with the MHF Medicare & Medicaid Fraud & Abuse Training module. The voluntary evaluation form will be deployed by a button on the last slide of the Powerpoint training presentation. Employees will be asked to complete the form and send it through inter-campus mail to MHF's Training Department. This Level 1 Evaluation form is based on a document created by the U. S. Department of Transportation (2005).

**Table 3. Level 1 Evaluation Form
for MHF Medicare & Medicaid Fraud & Abuse Training**

Your Name (<i>Optional</i>)	MHF Medicare & Medicaid Fraud & Abuse Training
Training delivery method: Intranet	Date Training Completed:

Your comments are important to us. Please rate the course you have just completed by responding to the statements in the spaces below. Use 1 for lowest and 5 for highest. Even if you include your name on this form, your comments will remain anonymous but will be included when MHF plans future training. Please send this form to MHF Training Department using inter-campus mail.

Please respond to the following statements, with 1 as the lowest rank and 5 as the highest.					
<i>Observation</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Before I took this training, my knowledge of the subject was ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Before I took this training, I thought the importance of the subject was ...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Difficulty of the training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pace of the training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The stated objectives were met by the training.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The training met my expectations.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Relevance of the training to my job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management and co-workers will support what I learned.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall quality of the training presentation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Comments					
The most useful part of the course was					
The least useful part of the course was					
My suggestions for improvement are					

Level 2 (Learning) Evaluation

Background

The following guidelines were adapted by the U. S. Department of Transportation (2005) from Donald Kirkpatrick's, *Evaluating Training Programs: the Four Levels*:

- Use a control group, if practical.
- Evaluate knowledge, skills, and/or attitudes both before and after the program.
- Use a paper and pencil test to measure knowledge and attitudes, and use a performance test to measure skills.
- Get 100 percent response.
- Use the results of the evaluation to take appropriate action.

In an analysis of non-technical, non-military training performed by the U. S. Department of Transportation entitled *U. S. DOT Training Program Review, Final Report*, Arthur Anderson Co. recommended the following protocols for Level 2 Evaluations that are universally applicable (DOT, 2005):

- 50% of courses should be evaluated at this level.
- Utilize learner assessment on a more limited basis.
- Embed test items into Level 1 questionnaires.

Creating a Level 2 Evaluation

Table 4 contains six steps for developing a Level 2 Evaluation adapted by the U. S. Department of Transportation (2005) from *Diversity Training Evaluation Toolkit*, published in 1994 by the U. S. Federal Aviation Administration.

Table 4. Six Steps for Developing a Level 2 Evaluation

<i>Step</i>	<i>Procedure</i>
Step 1 Plan	<ul style="list-style-type: none"> • Level 2 evaluation is used to determine if students have reached a satisfactory level of understanding and mastery of the course objectives. • Indications for revisions to the course materials are also revealed. • Talk to all stakeholders about the proposed level of evaluation and the costs and benefits of a full evaluation study. • If the need for evaluation data is significant, plan a more sophisticated study and budget appropriately. <ul style="list-style-type: none"> • In addition to questionnaires, such a study is likely to include pre- and post-tests of performance and/or interviews.

Table 4. Six Steps for Developing a Level 2 Evaluation

<i>Step</i>	<i>Procedure</i>
Step 2 Select Tool	<ul style="list-style-type: none"> • Achievement measure: <ul style="list-style-type: none"> • The most popular and accurate measures of learning outcomes are achievement measures. • Self-report measure: <ul style="list-style-type: none"> • When it is not possible to use the achievement measure, a self-report measure can be used. • Self-report measures do not have the objectivity of achievements measures but do provide valuable information about class progress.
Step 3 Adapt Tool	<ul style="list-style-type: none"> • Modify content: <ul style="list-style-type: none"> • Reword, delete, or add items to ensure goals are achieved and to measure accomplishment of learning objectives. • Modify the format: <ul style="list-style-type: none"> • Change rating scale items to open-ended questions or vice versa, depending on the kind of information desired.
Step 4 Implement	<ul style="list-style-type: none"> • Announce and explain the use of this evaluation and its purpose at the beginning of the course. • Allow enough time to complete the evaluation. • Participants turn in their evaluations when finished. <ul style="list-style-type: none"> • Those who are finished may leave the room so as not to distract others.
Step 5 Analyze	<ul style="list-style-type: none"> • To analyze this self-assessment measure, subtract the “before” rating from the “after” rating. • Total the results and divide by the number of items to find the average perceived gain for each individual. <ul style="list-style-type: none"> • The higher the number, the greater the impact of the course. • Use this process to find the average for the whole class or the aggregate of classes.
Step 6 Report	<ul style="list-style-type: none"> • Write a short “Training Evaluation Report” summarizing the results (<i>see</i> page 33). • Always compute mathematical averages of students responses, even if it is necessary to convert them to numbers. • If someone gives a rating outside the limits (<i>e.g.</i>, 10 on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score). • Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them. • Send copies of the report to the trainer, the trainer’s supervisor, and to the organization that funded the training.

Level 2 Evaluations for MHF Medicare & Medicaid Fraud & Abuse Training

MHF participates in the State Department of Mental Health's ("DMH") intranet-based training system that is managed by DMH Human Resources. This system allows selected modules to be delivered to an employee's workstation at a time when (s)he chooses or his/her supervisor directs. Each module is delivered as an HTML-formatted Microsoft Powerpoint document. The last slide in each training module presentation contains a link to DMH's Intranet system.

Intranet is a database-driven system that recognizes the completed module and, upon entry of the employee's name and password, presents learners with an on-line test instrument. Intranet is limited to true/false and multiple-choice questions. The system scores each test and notifies employees which questions were missed, at which time the system also alerts the employee to either a correct answer or instructions for locating the correct answer in the training module. Intranet records the employee's name and date of completion. Department directors, compliance officers, and training planners can generate reports from Intranet to identify which employees may have missed required training modules.

Table 5 contains a Level 2 Evaluation form developed for use by every employee after completing the MHF Medicare & Medicaid Fraud & Abuse Training module. MHF training department staff will actually key the document into the Intranet system.

MHF has determined it is not cost-effective to perform diagnostic testing on each employee's knowledge of Medicare & Medicaid Fraud & Abuse prior to the employee's participation in the training module. Because federal regulations require that every employee complete formal training, MHF has chosen to implement the training as a function of new-hire orientation and require it as a component of annual in-service training for each employee.

Goals for MHF's Medicare & Medicaid Fraud & Abuse Training module include 90% accuracy in each employee's responses to questions and statements included on the Level 2 Evaluation. If an employee scores lower than 90%, (s)he will be required to repeat the training module and complete the Level 2 Evaluation until 90% accuracy is achieved.

MHF's Accounting Department is responsible for filing and tracking all Medicare & Medicaid claims and monitoring program compliance. For that reason, MHF's Medicare & Medicaid Compliance Officer wishes to monitor the Medicare & Medicaid Fraud & Abuse knowledge of Accounting Department's staff more closely. Table 6 contains a Level 2 Evaluation form developed for use by personnel in the Accounting Department after completing the MHF Medicare & Medicaid Fraud & Abuse Training module. This form, based on a document created by the U. S. Department of Transportation (2005), will be forwarded to and retained by MHF's Medicare & Medicaid Compliance Officer.

**Table 5. Level 2 Evaluation Form for Use by All Employees
 Following MHF Medicare & Medicaid Fraud & Abuse Training**

Your Name	MHF Medicare & Medicaid Fraud & Abuse Training
Your Password	Today's Date

MHF is required to document your completion of this training module, and your level of learning is important to us. Please respond to the questions and statements in the spaces below. When you have completed this evaluation form, please send it to LHMI's Training Department via inter-campus mail.

Question or Statement	Select the Correct Response
1. Medicare is <i>correct answer is (b)</i>	(a) welfare for the elderly and disabled (b) health care payment system for certain elderly and disabled (c) insurance for the elderly and disabled (d) pension for the elderly and disabled
2. Medicaid is <i>correct answer is (c)</i>	(a) insurance for poor patients (b) welfare for poor patients (c) health care payment system for some patients who can't pay (d) pension for poor patients
3. This state's Medicaid program is called <i>correct answer is (a)</i>	(a) StateCare (b) StateCaid (c) StateMed (d) StateAid
4. The definition of "fraud" in relation to Medicare and Medicaid is <i>correct answer is (a)</i>	(a) intentionally making a false statement or misleading someone with the intention to deceive (b) taking advantage of someone (c) taking payments for services from patients or providers (d) reporting doctors or nurses for mistreating patients

Question or Statement	Select the Correct Response
5. The definition of “abuse” in relation to Medicare and Medicaid is <i>correct answer is (d)</i>	(a) hitting or mistreating patients, whether or not you meant to do it (b) giving out confidential patient information, whether or not you meant to do it (c) lying to patients or their families, whether or not you meant to do it (d) taking advantage of something for personal gain, whether or not you meant to do it
6. “Mail fraud” in relation to Medicare and Medicaid is <i>correct answer is (c)</i>	(a) re-using a postage stamp that has already been mailed (b) opening someone else’s mail (c) using the U. S. Postal Service to submit a false claim (d) sending illegal drugs or other items through the mail
7. A “kickback” in relation to Medicare and Medicaid is <i>correct answer is (a)</i>	(a) paying or accepting money or items of value for referring patients or services (b) cashing patients’ checks and keeping the money (c) allowing patients to buy you gifts or give you money (d) sharing patients’ money or valuables with other employees
8. A “false claim” in relation to Medicare and Medicaid is <i>correct answer is (b)</i>	(a) stealing a patient’s identification (b) billing for services never provided to patients (c) overcharging for services provided to patients (d) failing to refund overpayments to patients
9. What three tests must an action pass to be Medicare and Medicaid fraud? <i>correct answer is (b)</i>	(a) fraud, waste, abuse (b) knowledge, willingness, intention (c) mistake, penalty, suspension (d) investigation, compliance, conviction
10. Medicare and Medicaid abuse includes unsound medical or business practices that <i>correct answer is (c)</i>	(a) cheat or overcharge patients (b) mistreat patients (c) directly or indirectly increase program costs (d) directly or indirectly cost the hospital money

Question or Statement	Select the Correct Response
11. Which MHF employees are responsible for reporting Medicare and Medicaid fraud or abuse? <i>correct answer is (d)</i>	(a) the Administrator (b) departmental directors (c) shift supervisors (d) all employees
12. Must someone identify him/herself when reporting Medicare and Medicaid fraud or abuse? <i>correct answer is (b)</i>	(a) Yes (b) No
13. What is the CMS “hotline” number for reporting fraud or abuse? <i>correct answer is (c)</i>	(a) 1-800-FRAUDTIP (b) 1-800-ABUSETIP (c) 1-800-HOTTIPS (d) 1-800-STATTIP
14. Who receives reports of Medicare and Medicaid fraud or abuse at MHF? <i>correct answer is (b)</i>	(a) the Administrator (b) the Assistant Administrator (c) the Director of Accounting (d) the Director of Human Resources
15. Which of the following is <u>not</u> Medicare or Medicaid fraud? <i>correct answer is (a)</i>	(a) intentionally mixing up patients’ charts or test results (b) intentionally double-billing for patients’ services (c) knowingly providing services to a person who has stolen a patient’s identity (d) knowingly giving patients cheaper drugs and billing for more expensive brands
16. Which of the following is <u>not</u> Medicare or Medicaid abuse? <i>correct answer is (c)</i>	(a) repeatedly overcharging for patients’ services, even if it is unintentional (b) providing services without a Certificate of Medical Necessity (c) giving out patients’ personal information (d) billing patients for more money than Medicare allows

Table 6. Additional Level 2 Evaluation Form for Use by Accounting Department Staff Following MHF Medicare & Medicaid Fraud & Abuse Training

Your Name	MHF Medicare & Medicaid Fraud & Abuse Training
Your Supervisor	Today's Date

MHF is required to document your completion of this training module, and your level of learning is important to us. Please respond to the questions and statements in the spaces below. When you have completed this evaluation form, please deliver it to MHF's Director of Accounting.

Course Objectives	Before Taking this Class	After Taking this Class
As a result of taking this course, I am able to perform the following tasks with at least 90% accuracy:	Before this training, my level of knowledge or competency for this objective was:	After this training, my level of knowledge or competency for this objective is:
1. Prepare a Medicare or Medicaid claim for patient services.	1 2 3 4 5 Low - Moderate - High	1 2 3 4 5 Low - Moderate - High
2. Identify a need for chart-based documentation to support claims for patient services.	1 2 3 4 5 Low - Moderate - High	1 2 3 4 5 Low - Moderate - High
3. Identify discrepancies in diagnostic codes for routine patient services.	1 2 3 4 5 Low - Moderate - High	1 2 3 4 5 Low - Moderate - High
4. Determine the validity of a Certificate of Medical Necessity.	1 2 3 4 5 Low - Moderate - High	1 2 3 4 5 Low - Moderate - High
5. Reconcile overpayments and notify Patient Accounts staff.	1 2 3 4 5 Low - Moderate - High	1 2 3 4 5 Low - Moderate - High

Level 3 (Transfer-to-the-Job) Evaluation

Background

A Level 3 Evaluation normally occurs in the workplace following training. The most-common form of Level 3 Evaluation is an Employee Performance Review. However, in a situation such as MHF's on-going requirement for compliance under federal guidelines, quasi-Level 3 Evaluations can be performed while employees are engaged in workplace tasks (Marshall, 2005).

The following guidelines for Level 3 Evaluations were adapted by the U. S. Department of Transportation (2005) from Donald Kirkpatrick's, *Evaluating Training Programs: the Four Levels*:

- Use a control group, if practical.
- Allow time for behavior change to take place.
- Evaluate both before and after the program if practical.
- Survey and/or interview one or more of the following: trainees, their immediate supervisor, their subordinates, and others who observe their behavior.
- Get 100 percent response or a sampling.
- Repeat the evaluation at appropriate times.
- Consider costs versus benefits.

In a training analysis prepared for the U. S. Department of Transportation, Arthur Andersen Co. recommended the following protocols for Level 3 Evaluations that are universally applicable (DOT, 2005):

- 30% of courses should be evaluated at this level.
- Identify level of evaluation for each program.
- Establish schedule for routine follow-up of participants.
- Increase ownership of participants to follow-up survey efforts.

Creating a Level 3 Evaluation

Table 7 contains six steps for developing a Level 3 Evaluation adapted by the U. S. Department of Transportation (2005) from *Diversity Training Evaluation Toolkit*, published in 1994 by the U. S. Federal Aviation Administration.

Table 7. Six Steps for Developing a Level 3 Evaluation

<i>Step</i>	<i>Procedure</i>
Step 1 Plan	<ul style="list-style-type: none"> • Decide whether you will evaluate to confirm the effectiveness of the course or to improve it. • List specific values and skills that you will measure. • Talk to managers and other stakeholders about the proposed level of evaluation and the costs and benefits of a full evaluation study. • If your need for evaluation data is limited or your budget is not sufficient for a full study, use the sample forms in this guide. <ul style="list-style-type: none"> • This will permit collection of limited data on Level 3 for a very low cost. • Determine which employees will be included. <ul style="list-style-type: none"> • Ideally, everyone who has taken the course should be included. • If time and budget are a constraint, consider using a sample group.

Table 7. Six Steps for Developing a Level 3 Evaluation

<i>Step</i>	<i>Procedure</i>
Step 2 Select Tool	<ul style="list-style-type: none"> • Post-training surveys: <ul style="list-style-type: none"> • Questionnaires that are sent to employees and/or their managers one to three months after training. • Their purpose is to determine which skills learned in the course are being used. • Direct observation: <ul style="list-style-type: none"> • Consists of checklists to record actual observations of employee application of skills learned in training.
Step 3 Adapt Tool	<ul style="list-style-type: none"> • Modify content: <ul style="list-style-type: none"> • Reword, delete, or add items to make them fit your learning objectives. • Modify format: <ul style="list-style-type: none"> • Change rating scale items to open-ended questions, or <i>vice versa</i>, depending on what kind of information you wish to obtain.
Step 4 Implement	<ul style="list-style-type: none"> • Two dates should be chosen: one soon after the training, and one later. • Send the evaluation and other relevant information to the employee. • Send reminders to those who are slow to return the forms and keep records of the collected evaluations to ensure good return. • Consider measuring both student responses and the responses of their managers or supervisors.
Step 5 Analyze	<ul style="list-style-type: none"> • For each item, count the number of responses to each rating and find the average. • Review the comments, categorize them based on similarities, and write a brief summary. • Total the results and divide by the number of items to find the average perceived gain for each individual. • Use this process to find the average for the whole class or the aggregate of classes.
Step 6 Report	<ul style="list-style-type: none"> • Write a short "Training Evaluation Report" summarizing the results (<i>see</i> page 33). • Always compute mathematical averages of students responses, even if it is necessary to convert them to numbers. • If someone gives a rating outside the limits (<i>e.g.</i>, 10 on a scale of 1 to 5), convert it to the scale (in this case to 5, since that is the highest score). • Always include all student comments, either by attaching copies of the forms themselves or, if time permits, by retyping them. • Send copies of the report to the trainer, the trainer's supervisor, and to the organization that funded the training.

Sample Level 3 Evaluation

Table 8 contains an example of a Level 3 Evaluation form, based on a document created by the U. S. Department of Transportation (2005).

Table 8. Example Level 3 Evaluation Form

Your Name (<i>Optional</i>)	Course Name		
Trainer's Name	Course Date		

Your level of learning is important to us. Please respond to the questions and statements in the spaces below. Your individual score will remain anonymous, but the collective scores will be used to plan future training.

Specific Task	Preparation	Use	Importance
Example: Use MS Word to create tables in reports.	How well did the course prepare you to perform this task?	How often do you use this knowledge or skill on the job?	How important is this skill or knowledge to your job?
<i>State specific task here.</i>	<input type="radio"/> Poorly <input type="radio"/> Somewhat <input type="radio"/> Very well	<input type="radio"/> Seldom <input type="radio"/> Sometimes <input type="radio"/> Very often	<input type="radio"/> Not at all <input type="radio"/> Somewhat <input type="radio"/> Very much

Level 3 Evaluations for MHF Medicare & Medicaid Fraud & Abuse Training

After lengthy discussions regarding the nature and purpose of Level 3 Evaluations, MHF decided to implement a modified type of evaluation program to determine whether task-level modification has occurred following completion of the Medicare & Medicaid Fraud & Abuse Training module.

Only Accounting Department staff will be monitored under the Level 3 Evaluation, because employees in that department are responsible for filing and tracking claims. They are also responsible for researching and resubmitting claims that are rejected by Medicare or Medicaid. The Director of Accounting is the primary contact for CMS during its annual review, and Accounting Department staff can be more-closely monitored for task-level modification training needs.

MHF's current average monthly claim submission count for two Medicare and Medicaid programs is shown in Table 9. All claims submitted to Medicare and Medicaid must be 100% correct and complete for payment. Otherwise, claims are rejected. Rejected claims can be resubmitted, but they must be researched and corrected. This is a labor-intensive task.

Additionally, a senior member of the Accounting Department staff randomly selects five claims each month and reviews them in detail to identify potential discrepancies, either in overlooked billing for services or in items that were incorrectly billed (*e.g.*, incorrect or missing diagnosis codes or incomplete Certificates of Medical Necessity). Occasional discrepancies are found through this internal review process, and these claims are then subjected to resubmission as described above. Resubmissions resulting from internal review are not included in Table 10.

Table 9. Average Medicare & Medicaid Claims Submitted by MHF
Monthly Totals, by Program

<i>Program</i>	<i>Number of Claims</i>
Part A	15
Part B	30

Total Processing Time: 15 staff hours

MHF's current Medicare and Medicaid claim rejection rate averages approximately 10% per month. Each rejected claim requires approximately four staff hours to research, correct, and resubmit. MHF's goal is to reduce the number of rejected claims to an average of 2% or less per month, which would result in reduced personnel costs and increased monthly cash flow.

Table 10 shows the average staff cost for resubmitting rejected claims, based on the current rejection rate, and the expected savings if Medicare & Medicaid Fraud & Abuse training results in an 8% reduction in the average number of rejected claims each month.

Table 10. Cost of Resubmitting Rejected Medicare & Medicaid Claims
Compared to Cost Savings if Rejection Rate Decreases

<i>Rejection Rate</i>	<i>Staff Hours Required (2 staff x 2 hours each)</i>	<i>Average MHF Hourly Salary</i>	<i>Average Monthly Claims Reprocessed</i>	<i>Total Personnel Cost</i>
Current - 10%	4	17.58	4.5	\$316.44
Post-Training - 2%	4	17.58	0.9	\$63.28

Net Monthly Savings = \$253.16

Level 4 (Organizational Impact) Evaluation

Background

Perhaps the least-used evaluation method because of the inherent burden of data collection, analysis, and reporting, Level 4 Evaluations are critically important when training for purposes other than new-hire, emergency-response/damage-control, or regulatory compliance must be justified. Each MHF employee must complete Medicare & Medicaid Fraud & Abuse training as part of the employee's required, annual in-service training. For that reason, Level 4 Evaluations are a valid consideration.

The following guidelines were adapted by the U. S. Department of Transportation (2005) from Donald Kirkpatrick's, *Evaluating Training Programs: the Four Levels*:

- Use a control group, if practical.
- Allow time for results to be achieved.
- Measure both before and after the program if practical.
- Repeat the measurement at appropriate times.
- Consider costs *versus* benefits.
- Be satisfied with evidence if proof is not possible.

In a training analysis prepared for the U. S. Department of Transportation, Arthur Andersen Co. recommended the following protocols for Level 4 Evaluations that are universally applicable (DOT, 2005):

- 10% of courses should be evaluated at this level.
- Limit the goal of conducting a Level 4 evaluation.
- Adopt a Return on Expectations (R-O-E) philosophy in lieu of Return on Investment (R-O-I) philosophy.
- Determine secondary sources of data.

The Scope of Work for developing and implementing MHF's Medicare & Medicaid Fraud & Abuse Training does not include creation of a method for tracking organizational impact. However, the cost/benefit ratio is easily expressed in terms of annual personnel cost for completing the training module compared to the cost of penalties levied by Medicare or Medicaid if any claims are deemed to be in violation of applicable regulations. Table 11 contains such a comparison.

**Table 11. Cost of Medicare & Medicaid Fraud & Abuse Training
Compared to Penalties Levied for Infractions**

<i>Current MHF Staff Count</i>	<i>Average MHF Hourly Salary</i>	<i>Average Time Required to Complete Training</i>	<i>Total Training Personnel Cost</i>
504	17.58	0.5 hour	\$4430.16

Minimum Penalty per Infraction = \$5,000.00

Net Minimum Savings = \$569.84

Note: Penalties range from \$5,000 to \$10,000 per infraction. Additionally, MHF would be responsible for up to three times the actual amount of any submitted claim deemed to be an infraction.

Phillips' Level 5 Evaluations

"Pay attention to what works and do more of it and try to understand the principles involved. And also: pay attention to what doesn't work and stop doing it." ~ Nathaniel Brandon

Building on the work of Donald Kirkpatrick, Jack Phillips began publishing his theories on a fifth level of training evaluation in the 1980's. Phillips' work extended Kirkpatrick's Level 4 – Organizational Impact – and made it business-friendly by adding a detailed "Return on Investment" feature. Many modern authors mistakenly merge Kirkpatrick's Level 4 and Phillips' ROI principles.

Just as Kirkpatrick's Level 4 Evaluations are not always completed for each training program implemented at MHF, Phillips' ROI evaluations of training modules are generally not performed at the facility level. Therefore, MHF Accounting Department staff members get no formal experience in preparing a Level 5 Evaluation. They do, however, perform a limited business-unit cost/benefit analysis for each year's facility-level Cost Report that is used to plan the next year's fiscal budget.

Phillips, Phillips & Hodges (2004) discuss Level 5 data collection and reporting in detail in their book, *Make Training Evaluation Work*. In small studies, such as those MHF's Accounting Department might want to undertake, the authors recommend using readily available software, such as Microsoft Excel® for data compilation and statistical analysis.

Table 12 contains a sample basic ROI analysis of Web-based training (WBT) compared to traditional classroom instruction, prepared by Horton & Horton (2000) using Microsoft Excel®. The complete analysis contains seven spreadsheets entitled "Costs," "5-Year Costs," "Lost Opportunity," "Soft Costs," "Time Value," "Time Value 2," and "Shared Costs."

Horton & Horton (2000) introduce their spreadsheet package with a humorous observation: "Estimating costs of training projects is a black art only slightly more precise than reading tea leaves or bird entrails." These are familiar words to any Training Evaluator who has tackled the process of analyzing costs and/or ROI of a training event.

Table 12. Example Level 5 Evaluation / ROI Analysis

Money unit: US Dollars (USD)

Per-course costs	Classroom	WBT	
Course length	8	8	hours
x Development time rate	50	200	hours devt/course hr
x Development cost rate	50	100	USD/hour devt
= Total per-course costs	20000	160000	USD
Per-class costs	Classroom	WBT	
Instructor/facilitator salary	800	800	USD
+ Instructor/facilitator travel	1500	0	USD
+ Facilities	500	50	USD
= Subtotal (per class)	2800	850	USD
Number of learners	200	200	learners
÷ Class size	20	20	learners
= Number of classes	10	10	classes
Total class-offering costs	28000	8500	USD
Per-learner costs	Classroom	WBT	
Learner's travel	1500	0	USD
+ Learner's salary	800	800	USD
+ Instructor/facilitator's salary	25	50	USD
= Subtotal (per learner)	2325	850	USD
x Number of learners	200	200	learners
= Total learner costs	465000	170000	USD
Total costs	Classroom	WBT	
Course costs	20000	160000	USD
+ Class costs	28000	8500	USD
+ Learner costs	465000	170000	USD
= Total project costs	513000	338500	USD
Cost savings for WBT	174500	USD	
Return on investment	1.246428571		

Training Evaluation Reports

“When you produce results you gain credibility. When you have credibility, you will have an easier time producing results.” ~ Brian Koslow

Evaluation reports can range from simple averages to extensive statistical analyses with supporting documentation, charts, graphs, and observations. Reports may contain the results of one training session, or they may track long-term training efforts for one course or multiple tracks.

Table 13 contains a simple Evaluation Report, published by the U. S. Department of Transportation (2005). Note that Evaluator’s comments (“Special Issues”) are included as a method for explaining any potential skewed analysis results.

Phillips, Phillips & Hodges (2004) developed a simplified form for tracking multiple courses as shown in Figure 11. Such a form allows Evaluators to maintain records in an organized manner, either manually or electronically, so the records are quickly available for reference. MHF’s Accounting Department could implement a similar format for tracking the cost vs. benefits of Medicare & Medicaid Fraud & Abuse training.

Figure 11. Learning & Development Scorecard (Phillips, Phillips & Hodges, 2004)

Level of Evaluation	Participant Reaction				Learning	Application	Business Impact	ROI
	Registration / Logistics	Design	Delivery	Impact				
Program 1								
Program 2								
Program 3								
Program 4								
Program 5								
Program 6								

Table 13. Example Simple Evaluation Report

Evaluator's Name	Course Name
Trainer's Name	Course Location
No. of Students	Course Date

Following is a compilation of scores and comments submitted by students in the training course described above.

<i>Evaluation Averages</i>				<i>Rating Scale</i>	
Relevance to your job	4.8	Course materials	4.6	1	Poor
Clarity of objectives	4.7	Instructor(s)	4.9	2	Satisfactory
Course length and pace	4.6	Facilities	4.2	3	Average
Overall quality	4.8			4	Very Good
				5	Excellent

Student Comments

"I would have liked more time on the case studies."

"This class has done a great deal to increase my overall knowledge and confidence as a supervisor."

"Instructors were very helpful given the wide disparity of levels of knowledge!"

"Terrific; this information will help me in my new job."

Special Issues

One student left class at lunch on the second day due to illness and did not complete the final test or fill out an evaluation form.

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