CHAPTER 1

Analyze

The analysis phase is our first chance to "get it right," where we diagnose problems and differentiate training from non-training issues. Experienced practitioners know that, in the "real world," analysis doesn't always (or ever?) occur the way it does in the textbooks. You may be asked to respond to a red-hot urgent request from a CEO, who has little patience for a lengthy analysis phase. You may be called in mid-stream to work from existing data just uncovered in a unit 360-assessment process, or come face-to-face with a manager who has already promised staff a "time management" workshop.

The tools in this chapter are meant to help you find the right solution to the right problem, whether you're working from a quick conversation with a manager or on a full-blown assessment of job and skills tasks. There are worksheets for walking through information with management, templates for conducting task and learner analysis, guidelines for reporting analysis data, and tips for gaining management commitment to proposed training solutions. In addition 'to the usual questions about the symptoms and dysfunctions that point to a need for training, several items invite consideration of end results: What does success look like? As Nanette Miner asks in her "Twenty Questions . . ." list, "How will we know when the problem has gone away?"

Data Collection

When approaching a needs analysis, the training practitioner wears the hat of "researcher," and even "detective." While it is tempting to work only from information provided by managers, within an organization there are many other places for obtaining helpful data. A good analysis typically includes multiple sources of data from different points of view.

Tool 2. Data-Gathering Strategies

Contributed by Thomas Reeves, Ph.D.

This tool offers some suggestions for planning from whom, and how, information can be obtained.

Type of Information	Sources of Information		
	Observations	**Interview**	**Documentation**
Learners	Observe in work environment	Interview target audience, supervisors, peers, customers	Review employee files, training records, or personnel records
Tasks (actual skills used, i.e., data entry, factory assembly)	Observe audience or expert performing	Interview expert or other performers	Review job descriptions, policy statements, and trouble reports
Content (Subject-matter areas, such as "ethics")	Observe expert or creators of product/process	Interview subject-matter experts, policymakers, marketers, or managers	Review product plans, specifications, and marketing guidelines
Organization	Observe groups at work, during training, or company special events; sit in on management meetings	Interview customers, vendors, former employees; format as a "SWOT" analysis of strengths, weaknesses, opportunities, and threats	Company website, marketing materials, annual reports, employee satisfaction surveys, employee exit surveys, HR records, such as grievances and lawsuits

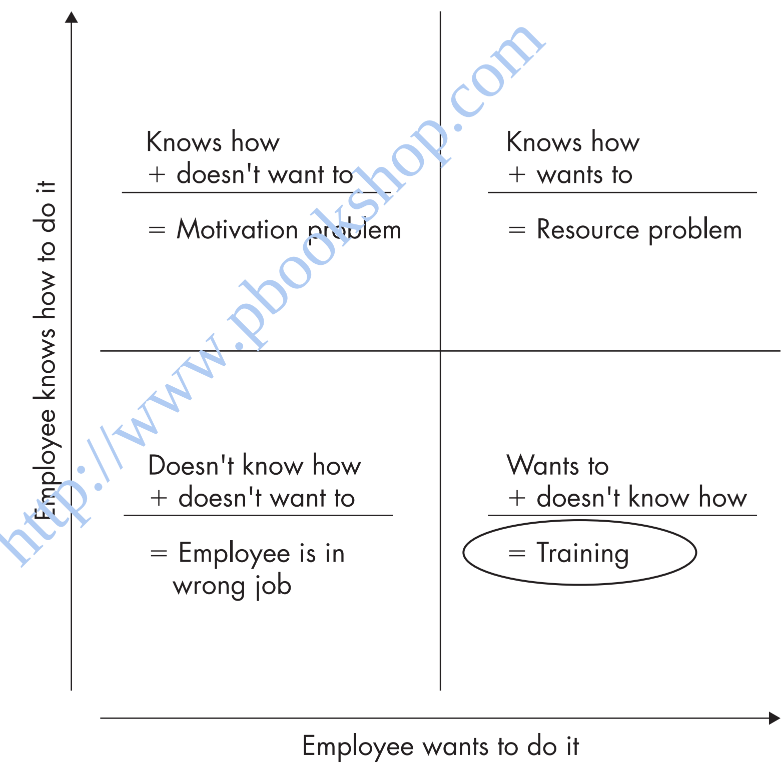
What's the Problem?

It can be awfully tricky getting to the root of the real problem. What the manager describes as a training problem may well be, for instance, a motivation issue that training will not solve: Delivering a group "team-building" workshop will not resolve the problem of the bad egg hired onto the team. Trainers, in their desire to help and to seem responsive, are often guilty of falling into the role of "order taker," as in, "Yes, Mr. Manager! You want an order of Communication Skills with a side of Stress Management!" even though we know the program won't help resolve the concern. As practitioners it's vital to remember that we are here to help managers solve a performance problem, not just deliver a workshop that doesn't address the real issues involved.

The tools in this section were developed by practitioners in need of help in teasing out core issues underlying the presenting symptoms of a problem. As management often sees training as a "quick fix," even if it is not indicated and will not be effective, the tools can be especially helpful in leading managers to consider other, possibly better, solutions. Items are organized from simple/short to complex/detailed. I recommend using the tools in order and as needed; that is, try by beginning with Tool 3. Grid: Is It a Training Problem, where you may find that resolution to the problem will not include a training intervention. Other times you may need to move all the way through to the long, detailed form in Tool 6. Needs substitute Analysis for Training Courses. What you choose, though, depends on your skill, experience, the situation you face, and even your preferences. For instance, I tend to prefer assessments that involve narrative responses and interviews rather than numerical ratings or checklists. Likewise, the tool I use with a client I know well, or a work group I've been with before, is different than one I might choose when first talking with a new client.

Tool 3. Grid: Is It a Training Problem?

I don't know where I first saw this, but there are many slightly different versions out there. I do know that I first discovered it back in the early days of my career and have used it ever since. It's my favorite quick-and-dirty needs assessment tool and has an excellent added value: It is the best tool I know of for helping to communicate the appropriate use of training to a manager making a request. A tip: Go for the "cocktail napkin" effect. I've found managers are even more receptive if you sketch it out while you're talking—as if it's impromptu—than if you pull it out of a file as a preprinted document. This is an excellent, quick tool for separating training issues from other problems.



I have found this tool especially useful in talking with a manager who wants to send a seasoned employee to "refresher" training. A training solution is only appropriate for an individual who wants to perform but doesn't know how. If an experienced, previously successful employee—or an entire work unit—suddenly shows a drop-off in performance, then the odds are that the cause lies elsewhere. It could be a motivation problem: Did the company eliminate cash bonuses last quarter? Is the company in the midst of layoffs? Is the individual burning out? Is there trouble at home? If the employee *knows how* to do the job, but *doesn't want to,* you may be looking at a motivation or personal problem.

Is there a resource problem? Does the employee have what he or she needs to perform effectively? I recall a dreadfully frustrating morning when, while trying to set up for a class, the presentation equipment I was using went down beyond repair, the only person with the code to the color copier had simply disappeared, and someone had decided to put a lock on the office supply cabinet without letting the rest of the staff know how to gain access to it. I knew how to do the job, and I wanted to do the job, but endless resource issues kept getting in my way. If the employee *knows how, but can't,* then there may be a resource issue: something is blocking good performance. "Resource" here can mean obstacles ranging from lack of money to broken equipment—even to a weak supervisor.

Has management simply put the wrong person into the job? The occasional bad hire is a universal problem. (Think back to your experiences as a child in school. I'd bet that you had at least one teacher who hated children and performed accordingly.) "Training" won't do anything for the employee who *doesn't know how* to do a job and really *doesn't want to*. Again: If the employee *wants* to do the job, but *doesn't know how,* then training may likely be the right solution. Other conditions would suggest a different response.

Training Manager Susan Nunn offers a comment that recaps the basic issues addressed in the grid: "Trainers are often expected to solve every personnel problem that the manager cannot or does not want to address, so know the difference between a training issue and a performance issue. If the employee *can't* do it, it may well be a training issue. If the employee *won't* do it, it is more likely a management issue. If the *manager* doesn't deal with it, then it may be that it is the manager who needs training to learn to deal with the issue!"

Tool 4. Training Assistance Request Worksheet

Contributed by Linda Levine

A special challenge for training practitioners is conveying the appropriate understanding of training and facilitating an honest assessment of likely outcomes. This form, designed for use in conversations with managers, can help to clarify requests, illuminate problems, and pin down specifics. It would be especially effective used in conjunction with Tool 3. "Grid: Is It A Training Problem?"

1. What do you want your employee(s) to do more, better, differently?

2. What are they currently doing/not doing?

3. What is the effect on the workgroup/customer/ organization?

4. Why do you believe training will resolve the problem?

5. How soon would you like the training offered?

6. How many employees will be participating?

7. Do you have special scheduling requests?
   - Days?
   - Times?
   - Length of Session?
   - Number of Sessions?

Tool 5. Twenty Questions You Should Always Ask Before Starting Any Training Program

Contributed by Nanette Miner, Ed.D.

Here is a longer assessment tool useful for working with managers asking for a particular training solution. It supports a more in-depth examination of a problem and the manager's expectations than the earlier tools. This one also addresses some issues that may surface—such as learner resistance—in delivering the training solution. Creator Nanette Miner, Ed.D,. offers this checklist as the appropriate response to the manager who calls to say, "My team needs sales techniques training."

1. What is the problem you are experiencing?

2. What are the symptoms that led you to believe this was a problem?

3. Who are the learners?

4. Where are the learners?

5. Tell me about their typical day.

6. Why do you think this is a training need?

7. Have they ever been able to do it in the past?

8. What organizational factors might be playing a role?

9. What training exists already?

10. What training have the learners had in the past?

11. Do the learners think they need training? (Now? For this problem?)

12. What if you don't train them? What's the worst that will happen?

13. How will this training need tie to business goals?

14. What's most important to you (the manager): time, speed, or money?

15. What resources are available to assist with this?

16. Who will give their signoff/blessing?

17. How much access will I have to the subject-matter expert?

18. What's the life expectancy of this course?

19. How will the training be reinforced after it's over?

20. How will you know when the problem has gone away? What do you want to see change/done differently?

Tool 6. Needs Analysis for Training Courses

Contributed by Friesen, Kaye and Associates; adapted by Susan Boyd

The preceding tools assume a fairly straightforward request from a manager (or other client) wanting to address an issue with his or her work unit. You may, however, be faced with a problem of farther-reaching scope or one that involves a broader array of organization stakeholders, or you find that you are not comfortable with the amount of information garnered via the other tools. Here is a very comprehensive, detailed needs assessment checklist originally developed by consulting firm Friesen, Kaye and Associates and revised by consultant Susan Boyd. It can aid in problem definition as well as help you find out more about the situation of learners, the constraints in gathering data from other stakeholders, the role of other departments (such as the organization's Information Technology office), and the logistics of the rollout of the training solution.

Category	Question	Response
Business Objectives	1. What business or performance problems are you attempting to resolve or improve?	
	2. What is the impact on the business if this problem is not solved? How important is this problem/issue to the bottom line, reputation, compliance/legal requirements, etc?	
	3. How can training contribute to solving this problem?	
	4. What other things, besides training, have to be done to solve this problem?	
	5. How will success of the project be measured?	
	6. Who will be the business sponsor/leader of the training project?	
	7. What is the budget for the training?	
Training Program Parameters	1. What are the objectives of the training program?	

Category	Question	Response
	2. How does this training program relate to business objectives or goals?	
	3. What incentive or motivation will the learners have if they complete the training?	
	4. What incentive or motivation will the managers have if their staff complete the training?	
	5. What tracking is required for training completion (record of completion, learner test scores, learner's progress through the course, etc.)	
	6. Can the current training tracking system handle the required level of tracking? Is a learning management system in place? If not, will one have to be acquired?	
	7. When is the training required—target date for delivery?	
	8. Will everyone complete the training in a full deployment or will training be completed on a "need to know" basis?	
	9. Who will be on the project team, and what roles will they play? (for example, business lead, IT, training designer, subject-matter experts, representative learners, etc.)	
	10. What content currently exists?	
	11. What is the best way to make the training meaningful to the learners? What work-related documents, scenarios, photos, etc. can be used?	
Learner Assessment	1. Are learners geographically dispersed?	
	2. Do learners work at different times (for example, three shifts)?	

Category	Question	Response
	3. Do the learners see the value or need for this training?	
	4. What is the gap between the learners' current and required skill levels?	
	5. What is the attitude of the learners about the topic area?	
	6. What do learners already know about the topic?	
	7. What is the motivation of the learners to complete this training?	
	8. What information is known about the demographics of the learner population (age, gender, education level, etc.)?	
	9. Will the course first be piloted to targeted groups of learners?	
	10. What types of training programs have succeeded with these learners?	
	11. What types of training programs have *not* succeeded with these learners?	
	12. What are the technology skills of the learners?	
	13. What is their acceptance of technology delivered learning?	
	14. What are the cultural and language needs/preferences of the learners?	
	15. Is there support for learning at the desktop from managers and other learners?	
Technology Assessment	1. Is the IT department part of the project team for the training department?	
	2. What equipment setup do the learners have (hardware speed, Internet connection, browser version, sound cards, headsets, etc.)?	

Category	Question	Response
	3. What software plug-ins are already part of the standard configuration? Can others be added?	
	4. What authoring tools can be used (or are in place) to create online learning?	
	5. What provisions are there for learners to take courses at another work station if they do not have a desktop or the needed setup?	
	6. What bandwidth issues should be considered?	
	7. What are the technical requirements for the LMS system, if any?	
Assessment Strategies	1. What is the most effective assessment strategy for your audience (e-mail survey, telephone survey, in-person interview, focus group)?	
	2. What is the availability of staff to participate in assessments, such as interviews or focus groups?	

Tip: Saying, "No."

What if, in the course of conducting a needs assessment, you find that the problem simply does not suggest a training solution? Providing the wrong solution in response to a request is a version of winning the battle but losing the war: The training department gets the business and seems responsive, but, ultimately, someone will say, "Well, we tried training, but it didn't work" or, worse, "The training department did this for us, but it didn't help at all." It is a disservice to the client and a blow to the training profession's credibility. But how to say, "No" to a boss, or even to *your* boss? Remember, managers, even those who are insisting on training, really are asking to have a problem solved. Showing how that can be done, and being part of that better solution, will ultimately enhance both training's and your reputation. While there may be times you simply must follow orders, work to position the training function as a partner in performance improvement, not just the deliverer of one type of intervention.

Job, Task, and Skills Analysis

A thorough needs assessment involves more than just interviews with management. Tools 7, 8, and 9 offer help in analyzing specifics of performance.

Tool 7. Job/Content Analysis

Contributed by Thomas Reeves, Ph.D.

If your program is intended to train people for a specific job or task, such as training a procurement officer to use a new spreadsheet function, you will usually conduct a "job analysis." If your program is aimed at educating people about a specific content or subject area, such as "workplace ethics," you will usually conduct a "content analysis." Both types of analysis are quite similar, and in most cases, your analysis will include both job and content analysis.

JOB ANALYSIS			
Job Title:			
Description of the Job:			
Tasks	**Tools Used**	**Standards for Performance**	**Conditions for Performance**

CONTENT ANALYSIS			
Subject Area Title:			
Content Description and Relevant Definitions:			
Tasks	**Tools Used**	**Standards for Performance**	**Conditions for Performance**

Tool 8. Task Analysis Form

Here is a tool for a more in-depth task analysis. The prospect of task analysis can be daunting, but can be critical to successful problem diagnosis and subsequent solution. The tools below provide a nuts-and-bolts overview of ways to approach the process. Breaking a task down, though, can be quite an undertaking. Take a look, if you can, at Designing Effective Instruction *by Morrison, Ross, and Kemp (3rd ed. 2001). It includes a task analysis for making a peanut butter and jelly sandwich—all sixty-eight steps.*

Task Analysis Form: Outline

1. Identify the major user tasks and criticality of each.
2. Break tasks down into subtasks and specific steps.
3. Identify frequency and priority of each step or subtask.
4. Identify input and display requirements.

Below is part of a sample task analysis using an outline format.

I. Major Task 1: Create an order (Criticality: Critical; Frequency: order rate 50/hour)

A. Subtask 1: Enter customer data (system will generate and display order number)

a. Step 1.1. Enter last name: 100 percent of time

b. Step 1.2. Enter first name: 100 percent of time

c. Step 1.3. Enter phone number: 90 percent of time (customer does not always have phone)

B. Subtask 2: Enter order information

a. Step 2.1. Enter item number:100 percent of time, required

b. Step 2.2. Enter quantity: 95 percent of time only 1; 5 percent of time quantity is more than 1

c. Step 2.3. Enter color: 25 percent of time this field is used

If you prefer, the task analysis data can be entered in table form, as shown in the sample below.

Task Analysis Form: Table

Task	Description of Task or Step	Frequency	Data to Be Displayed	Input Fields	Criticality of Task
Major Task 1	Create an order	*50 hour*			Critical
Subtask A.1.	Enter customer data	Always	*Order number assigned by system*	*Last name, first name, phone, address*	
Step A.1.1	Enter last name	*Always*			
Step A.1.2	Enter first name	*Always*			
Step A.1.3	Enter phone#	*90 percent of time*			

Source: NASA

Tool 9. Skills Chart

Contributed by Karl Kapp, Ph.D.

From contributor Karl Kapp: "Often there is a disconnect between what an organization says is important and where the organization decides to focus its training resources. This skills chart is designed to determine the gap between the skills that the organization views as critical to success and the perception of how successful training is for building those skills. During the needs analysis process, a tool like this can expose gaps between critical organizational skills and training that may be needed.

Getting training resources can be a difficult task; however, demonstrating a clear gap between the critical skills an organization needs for success and the effectiveness of the training programs to address those skills can be a real eye opener for management. It really highlights the difference between lip service about critical skills and actions taken to strengthen those skills. Also, if management and hourly employees differ on what skills are critical or what training is effective, that difference can open up a dialogue within the organization to address those gaps."

How to Use the Skills Chart

The Skills Chart in Tool 9 should be used at the organizational level with both management and hourly employees to determine, overall, the critical skills within the organization and how effective the training efforts are in helping employees achieve those skills. When you have gathered all the input from the employees, add up the numbers on the scale and create a weighted average. You may find that a certain skill is Extremely Critical to your organization but that the training is Not Effective. You may also find that management deems one skill Extremely Critical, while hourly employees may deem a different skill as Extremely Critical. Creating a graph juxtaposing critical skills and the effectiveness of training can really highlight training gaps.

How to Customize the Skills Chart

To customize this chart, list the general skills you think are important to your organization, especially those that have surfaced during your analysis. The example shown deals with a transportation company. If you worked in a manufacturing company, you might indicate skills like grinding, lathe operation, and so forth. If you worked with a banking company, you might pick skills like customer relations, cross-selling, or other related items. You may have to conduct focus groups to create the initial list of skills. Once you have the list narrowed down, place the skills on the skills chart and seek input from the organization. You do not need to have specific names, but it is a good idea to determine position within the organization to identify any gaps that may exist between management and hourly employees.

Training Needs Analysis: Skills Chart			
1 = Extremely Critical **5 = Not Critical**		**1 = Extremely Effective** **5 = Not Effective**	**Internal or External**
Type of Skills	**How critical are the following skills to your organization?**	**How effective is the training your employees are currently receiving in this area?**	**Is the training conducted internally or externally? If externally, please indicate provider.**
Mechanics			
Diesel Engine Repair	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Truck Body Repair	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Trailer Repair	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Preventative Maintenance/Mechanics	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Organization/Time Management	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Drivers			
Understanding life as a driver	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Customer Service	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Interpersonal Skills	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Driver-Specific Paperwork (understanding importance, DOT requirements)	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Computer Skills	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
General Workforce			
English as a second language (Spanish) or Other (specify)	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Diversity Training	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Computer Skills	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Written and Oral, Communication Skills	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:
Team-Building Skills, Interpersonal Skills	1 2 3 4 5	1 2 3 4 5 (no training)	Int/Ext Provider:

Analysis: Learners

Another activity important to a strong analysis is garnering knowledge about the target audience. It is critical that training design address not just organizational needs but the attitudes, abilities, and realities of those who will receive the training. Several of the tools provided have already touched on issues of learner attitude toward training and past training experiences. Tool 10 is an in-depth questionnaire for use in gathering data about a target training group as a whole. Creator Karl Kapp uses it to paint a portrait of a sample learner group, representing the population for whom training will be developed. I know of one organization, with a training department offering a large catalog of courses for which employees can enroll themselves (such as Excel and Stress Management and Negotiation Skills), that collects this data from every new hire. The information is stored in a database and then, prior to a class, the training department can pull up a composite picture of the attendees. The trainer can then better plan activities and anticipate needs and questions.

As so many organizations are now moving to e-learning approaches, a technology skills inventory (Tool 11) is also included in this section. Both of these items touch on information regarding the learning styles of individual learners.

A final note on the matter of learning styles and preferences: There are myriad theories on learning styles. The most prominent are perhaps those based on Kolb's Cycle of Learning and Gardner's Theory of Multiple Intelligences. Information regarding these and other theories is largely previously published and copyrighted but is widely available on the Internet; try a web search for "learning styles." The underlying assumption for any of the theories is, briefly, that all learners have particular styles and preferences in how they learn, and therefore the conscientious trainer will prepare materials and approaches that address all preferences (for instance, a mix of written work, presentation, and hands-on activities). A quick test can be pulled from the Visual-Auditory-Kinesthetic (VAK) model, which asks whether a learner prefers to learn via seeing, hearing, or touching. Here's an example: When you buy a new piece of electronic equipment—a new cell phone, say—do you sit down and read through the entire manual, talk with a friend who has a similar phone, or just play with it until it works? The first indicates a visual learning preference, the second an auditory preference, and the third, a kinesthetic preference. Knowing the mix of styles in your group of learners, particularly if it is heavily skewed toward or away from a particular preference (for instance, a strong preference for hands-on activities and an aversion to written material and reading assignments), will be helpful in planning an effective training intervention.

Tool 10. Learner Characteristics

Contributed by Karl Kapp, Ph.D.

This tool helps to paint a portrait of a sample audience, representative of the target population for whom the training will be developed. A filled-in example is shown.

Example: Acme Tool & Die, Third Shift, October 2007

Learner Characteristics	**Data Collected**	**Resources Used**
Age	Age Ranges 20–25	Self-Report
Gender	Six male, two female	Self-Report
Language	Primarily English as a first language; One: First language Indian; Two: First language Spanish	Self-Report
Work Experience	As most are under age 25, this is first full-time job	Self-Report
Position Within Organization	Front-line assembly staff	Organizational chart
Personal Characteristics		
Maturity level	Most are young and there are occasional problems with impulse control and work habits	Floor supervisor
Motivation Level	Overall high; two employees have expressed interest in moving up; one is working third shift in order to attend college during the day	Floor supervisor
Expectations	Frequent pay increases; comfortable work environment with added perks: espresso machine, massage chairs in break room	Floor supervisor; self-report
Vocational aspirations	Some interested in upward movement; one moving to engineering upon completion of degree; others seem satisfied	Self-Report
Special Talents/interests	Two very interested in virtual worlds and are Second Life participants, one a voracious reader, one a sci-fi movie fancier; one especially interested in factory floor operations; one especially good with troubleshooting machinery glitches	Self-Report
Mechanical dexterity	Very high: job demands it	Observation of learners

Learner Characteristics	Data Collected	Resources Used
Ability to work under various environmental conditions	Has not been assessed; factory floor does not change	N/A
Academic Information		
Education completed	High school; six with one year of college; one with two years of college; one college graduate	HR records
Training level completed	All have had intro courses; two have had advanced troubleshooting; one in beginning supervisory skills training	Training record review
Special courses completed	One has attended high-level safety training and serves as shift safety manager/consultant	Training record review
Previous performance levels	Satisfactory; one seems to become bored with mundane nature of work, resulting in slightly higher rate of rework	Floor supervisor
Standardized test scores	N/A	N/A
GPA	N/A	N/A
Learning Styles		
Visual/Auditory /Kinesthetic preference	Perception of Information: Visual, Auditory, Kinesthetic. Primarily Kinesthetic	Observation of learners; learner responses to web quiz: "How Do you Learn Best?"

Tool 11. Learner Technology Skills

Contributed by Karl Kapp, Ph.D.

In my experience, asking only management about employee technology skills doesn't help me find very good information. For instance, I was once told that the employees of an accounting unit were proficient only in spreadsheet and other numbers-based applications, but in talking with employees found that several spent their lunch hour participating in a complex role-playing online game, while another had taught herself web design and was creating a family genealogy website. Contributor Karl Kapp had similar experiences and developed this questionnaire in advance of implementation of a new enterprise-wide software system. It would be useful for any organization planning a technology rollout or launching e-learning to a new learner group. The data collected here could prove invaluable in smoothing a launch, anticipating user skill issues, and creating prework activities. Several questions in the "learning styles" section would be useful in any assessment of learners.

PC Skills

1. What do you use a computer for at work?

   ❑ Email

   ❑ Web/information searches

   ❑ Spreadsheets (Excel or others)

   ❑ Documentation (Word)

   ❑ Presentations (PowerPoint)

   ❑ Work processes (ordering, tracking, etc)

   ❑ Other use (instant messaging, gaming, other)

2. How proficient do you feel that you are in the different software you use?

3. Do you use a computer at home? If yes, what for?

   ❑ Financial tracking/budgets?

   ❑ Web (if web, what do you use the web for?)

- ❑ Information
- ❑ Travel planning
- ❑ Pay bills
- ❑ Games
- ❑ Email
- ❑ Other

Learning Styles

1. How did you learn to use the computer software that you currently use?

2. How do you feel that you learn best? (classroom instruction, reading on your own, experience)

3. If you could obtain additional training, coaching, or support on any software that you use, which applications would you want support/ training on? Why?

4. What would the best type of training/support for you look like?
   - ❑ Formal class
   - ❑ Coaching
   - ❑ Book
   - ❑ Tech support online
   - ❑ Other

5. Of the software training that you have attended,
   - What parts did you feel were the most beneficial?
   - What parts were the most frustrating for you?
6. If you currently have a question about how to use software, whom do you ask?
7. Do you have any software manuals you use to find information?
8. What is the best training experience you have ever had? What made it good?
9. What is the worst training experience you have ever had? What made it bad?

Tool 12. Existing Training: Who Gets What?

Still another element of needs assessment is finding out what is already in place and what learners have experienced or been exposed to. This can help the person conducting the analysis to understand what training learners have already attended and what types of training the organization supports, and it can shed light on the learners' experience with training in this particular workplace. This matrix is also useful at communicating training requirements and is a good item to provide to new hires and supervisors.

Course	**Jobs Requiring Training**	**Duration**	**Frequency**
A/C Refrigeration Servicing	A/C Maintenance	5 hours	New hire
HAZWOPPER First responder	Security	8 hours	Annual
Environmental Awareness	Bulk Materials; Integrated Emergency Response; Spill Contingency; Waste Management; Energy Management; Asbestos Management	6 hours	Every other year
Incident Command	Security and Supervisors	12 hours	Annual
Fire Brigade	Emergency Response Team	2 hours	New hire
EMS Awareness	All staff and full-time on-site contractors		New hire and as necessary
EMS Document	Staff and full-time on-site contractors whose work requires knowledge of the document	Varies	New hire and when document changes occur
EMS Implementation	Cross-Functional Team and EMR	8 hours	New hire and new auditors

Source: North Carolina Division of Pollution Prevention and Environmental Assistance

Synthesizing and Reporting Data

What to do with all the data once it is gathered? Here are two tools useful in synthesizing and making sense of the information culled during the analysis phase. The first, Tool 13, is for use by the trainer or other person conducting the analysis, to help in sorting out different sources and points of view. Tool 14 is a suggested format for crafting the analysis report form that will be submitted to management or other client.

Tool 13. Training Analysis Recap for Trainer

Once analysis is complete, this tool is helpful in organizing and recapping the data and reducing it to its essence. As the tool emphasizes the perspectives of different stakeholders, it can be useful in identifying and analyzing situations that may involve "touchy" subject matter or political issues. The last steps ask for a preliminary description of both short-term and long-term solutions as well as an analysis of possible outcomes if the solution is implemented. I find this tool very helpful in assembling data from various sources into a meaningful whole.

Regarding the source of this item: Several years ago, in a graduate school class, we used a document similar to this in analyzing cases from the textbook. The professor has since moved on and the book is out of print. Much later, in the course of working on a project, I felt the need to use the worksheet again, reconstructed it as best I remembered it, and have modified it since. Here is a completed form showing an example, including my shorthand and notes to myself, of a real case I encountered.

Needs Analysis Recap

Project: *Government agency request for online "discipline policy" training*

1. Summarize: What are the critical facts, key information, key players, resources, and constraints? (Note: Avoid jumping to "solutions" at this point.)

Management request: develop an online program for the state's employee discipline process.

Main issues: Grievances are increasing and being lost in bigger ways. Losses are typically due to serious errors, such as blatant discrimination, and not to mistakes with finer points of the policy. Prior training has been provided by subject-matter experts in HR offices and is reportedly dry, too technical and intricate, and too focused on rules and procedures than on application.

2. What are the main issues? What is at the heart of this situation?

Grievances are not lost due to small policy matters such as sending the wrong memo or failing to follow every item on the policy to a "t." They are revealing serious issues with failure to help employees improve, inconsistency in treatment of employees across the work unit, and blatant cases of discrimination and favoritism. Supervisors are able to apply the letter of the policy, but are missing the intent.

3. What are the different perspectives of those involved?

Upper management is concerned about costs and bad publicity associated with lost cases and acknowledges that existing training is not working. Very supportive of alternative training delivery methods as traditional classroom has proven time-consuming, expensive, and difficult to schedule so that supervisors can attend. Specifically requested and offered support for online training program.

Middle management thinks that the policies are too intricate and that training offered has been only in the form of presenting detail about policy, not application to realistic situations. Learner reaction sheets consistently report that materials used in training do not reflect reality of workplace situations and constraints on supervisors.

There is stress between management and the human resources offices: Management feels that the HR offices are not providing enough support and meaningful information about effective use of the policies.

Agency in-house subject-matter experts (HR staff) reluctantly provide training, but have no experience with instructional design and thus regard training only as presentation of material.

Learners say they have little input into the process or the content of training provided to them, feel that the training content is overwhelming, too focused on details and facts rather than application, and not relevant to their work realities. Training viewed as a waste of their time.

Additional learner information: As a group learners are in their mid-thirties to mid-forties, college graduates. Have strong word processing and email skills, but have limited experience with e-learning. Learners predominantly have visual/kinesthetic learning preference. They are not auditory and have expressed complaints with lecture-heavy training.

4. What are the known facts?

Grievances are increasing and being lost.

Cases not lost on technicalities but on blatant errors.

Management wants a new training program, preferably online, targeted to reduce the issues that are causing the increased grievances.

Those who developed the existing training are subject-matter experts with heavy focus on content but little on application; current training consists largely of coverage of "rules" and details.

There is a credibility gap between HR specialists and managers/learners.

HR specialists have ownership in the program, are threatened by potential changes and especially the idea that the new program can be delivered online.

5. What do you still need to find out? (Be mindful of time frames.)

Who is making the rules about the "need"? Are there other perspectives? Whose needs are being neglected? WIIFM for learners; what are their real concerns?

A concern: The focus seems entirely on the issue with grievances themselves. But the grievances are caused by underlying issues such as favoritism and discrimination. What do we need to do about that?

What are the critical skills needed by the line managers who must administer the policy? (Need to complete a task analysis). For instance, does the line manager actually write warning letters or conduct disciplinary meetings alone?

6. Ideas for short-term solution? What can you do now that will help satisfy the client?

Quickly create job aids, checklists, and flowcharts of processes/procedures (solutions close to the performance context)—find ways to simplify the complexity of the policy and make procedures more accessible.

Include end users in design.

Find/develop authentic scenarios and case studies for training.

Use extant data (grievances are published, so review these cases) for rapid instructional design.

Involve subject-matter experts in design and deployment.

Need to establish plan for overcoming objections: Approach will mean less coverage of material, nontraditional "look."

"Sell" the advantages of the online learning approach.

Repurpose existing materials.

Develop and deploy the online program.

7. Ideas for a long-term solution?

Work toward culture change.

Develop work for HR staff: Cases are not lost entirely because of supervisors. Upper management and HR must sign off on everything; cases should not be making it past them.

Updates and ongoing performance support

Library of tools

Consistency among agencies

8. Advantages/disadvantages of solutions. (Consider the needs of the different stakeholders.)

Advantages: Problem solved; players satisfied; more meaningful learning used in relevant contexts

Disadvantages: fails; technology fails; training not delivered

9. Anticipated outcomes if client implements recommendations:

Fewer grievances—resolution of presenting problem. Employees receive fairer treatment. Management satisfied. Learners confident at handling. Paves way for future problem-based blended or online programs.

Tool 14: Analysis Report Template

Contributed by Thomas Reeves, Ph.D.

Just as it is important to conduct a good needs assessment, it is also essential to report the findings in a clear, concise manner that decision-makers can understand and use. While the preceding recap form was intended for the trainer to use, the form below is intended for use in developing the information to be presented to management or other clients. The "Analysis Report Template" lists the items that should be included in a needs assessment or task analysis report. The formality of the report will depend on the size and scope of the project and the nature of your relationship with the client.

Executive Summary: This section presents an overview of the analysis findings in a format that allows decision makers to make important decisions effectively and efficiently.

Introduction: This section introduces the major sections of the report as well as the primary people involved in conducting the analysis and producing the report. The client is also clearly identified.

Background: This section describes any information needed to provide the reader with an understanding of the background for the analysis, for example, who initiated it and why.

Purpose(s): This section describes the purpose(s) of the analysis. For example, a needs assessment might be done to detect training or education needs that aren't being met by existing programs. Or a needs assessment might be done to confirm the existence of needs or clarify the nature of needs that others have perceived. A job or task analysis might be undertaken to collect information directly related to the nature of the interactive multimedia product under development.

Limitations: This section spells out any limitations to the interpretation and generalizability of the analysis. It should also describe threats to the reliability and validity of the instruments (e.g., questionnaires, interview protocols, or focus group protocols) used in the analysis.

Questions: This section outlines specific questions asked, and of whom.

Methods: This section describes the analysis techniques used, such as observations and surveys. Step-by-step descriptions of *what was* done should be provided.

Sample: This section describes the managers, learners, trainers, and other personnel included in the analysis.

Instrumentation: This section describes all the instruments and tools that were used during the analysis. Copies of the tools should be included in the Appendices.

Results: This section spells out the findings. Graphs and charts should be used wherever they are appropriate.

Recommendations: This section presents recommendations based on the findings report in the previous section.

Summary: This section presents a brief synopsis of the report.

References: This last section lists the sources reviewed or consulted during the analysis.

Chapter 1 Wrap-Up

Here are some words to the wise offered by experienced practitioners, lessons learned about bridging the analysis phase with the movement to the design phase. This section concludes with Tool 15, the "World's Quickest Training Needs Analysis" worksheet.

Analysis: The REAL Story Versus the Sacred Story

I learned one of my most valuable lessons in needs analysis in a serendipitous "a-ha" moment during a graduate course on Reflective Practice. The professor put a pile of school catalogs, the campus newspaper, and some departmental brochures on the table in front of us and asked us to spend five minutes writing the "story" about our university those materials told.

The glossy marketing materials showed deliriously happy students, and a diverse bunch at that, working in chemistry labs and listening intently to professors and working with what appeared to be very expensive lab equipment and things like nuclear reactors. So our lists were pretty much the same, with lots of phrases like "cutting edge," "technologically advanced," "high-tech," and "research of global importance."

When we'd finished and reviewed our lists out loud, the professor said, "You've just told this university's sacred story. Now look around this room and down the hall, and cast about in your memory, and spend five minutes writing this university's *real* story."

I looked around the room. We, enrolled in doctoral studies in this large, "technologically advanced, cutting-edge" university, were meeting in a classroom that had a *chalk*board (with no chalk), an overhead projector with no bulb, and a leak-stained interior wall. And we were all white. And we were all middle-class.

Moral: In talking with management and other stakeholders about training needs, be aware that you'll likely be given the sacred story. Find the *real* story before you start developing training. It will help you get at the true training issues, it will shore up your credibility with the trainees, it will help you design a more effective evaluation strategy, and it will help you shift the role of trainer from "order taker" to performance consultant.

Tips for Achieving Management Commitment to Training Solutions

Contributed by Patti Shank, Jennifer Hofmann, and Cindy Epps

Getting management commitment to training, to ensure employees are allowed and encouraged to attend, and to support the transfer of training back to the work site, can be quite a challenge. Even when the training is indicated by performance problems, and sometimes even when it has been requested by a manager, freeing up staff time to attend training and supporting participation by staff can still prove something of a struggle. Here are some tips from seasoned trainers and instructional designers. Many, one way or another, speak to the need for training to address the right issues and solve real problems.

- Work toward performance improvement, not just "training," so *real* problems are solved.
- Listen. Don't interrupt. Learn how the organization really works.
- NO mandatory classes. If your instruction isn't good enough for folks to *want* to attend, you aren't doing your job, and managers can only do so much to support you. Even if the courses are mandated by law or something else, there's no need to announce it.
- Have line management involved in the analysis and course development phase so you know what the problems are and what they need. This will also help to gain their support in helping learners transfer new skills back to the work site.
- Set an expectation that line management is primarily responsible for skill development for their staff. They know those jobs better than you do. Your job is to produce the training their folks need. Make it a partnership. Provide a valuable service and real solutions, not just "training."
- Understand the jobs you are developing training for by shadowing staff and managers, doing the jobs, and walking in their shoes.
- Don't get sucked into fads and easy answers.
- Have orientations for managers about new initiatives, emphasizing the "what's in it for you" factor.
- Make managers responsible for signing off that training has occurred. Establish managers as the final assessors.

- Be credible. Don't make promises you can't keep—and keep the ones you make.
- Focus on those things you have control over, such as providing data to managers about performance issues or training needs.
- Make an explicit link between your training and your training marketing materials to the organization's mission, vision, and values.
- Help learners make connections between their performance and the organization's goals.
- Invite managers to present modules in your sessions.

Tool 15. World's Quickest Training Needs Analysis

Contributed by Anne Howard and the founding members of the NC Trainers' Network Team.

Many training practitioners wear several hats, and are often analyzers, designers, trainers, and evaluators all in one. The first key principle, and cornerstone, of the North Carolina Certified Training Specialist course is: "Learner First, Situation Second, Content Third." The tool below is the first item presented to novice trainers attending the course, and they are told again and again: If you don't do anything else, at least do this.

Who Are My Learners?

1. What do most of them do on the job?

2. What do the rest do?

3. Why are they participating in this training?

4. Is it required? If so, by whom?

5. What do they already know about this topic?

6. What reactions/problems do I anticipate?

7. How many people do I expect?

8. Do they have a history with me on this topic? What is that history?

What Is the Situation?

1. How much time do I have for the training session?

2. How many people must be trained at once?

3. How many sessions are needed?

4. Will I have to travel to the training site? Will I have to carry equipment?

5. What size room do I have?

6. Are tables available?

7. Is there room for participants to move around?

8. What resources are available to me? (e.g., co-trainers, pre-designed activities, audiovisual equipment)

9. Are there statutory requirements that must be met? If so, what are they?

What Do They Need to Know?

1. What are the expectations of those requesting the training?

2. What are the expectations of the learners?

3. How do people who use this information or skill use it?

4. What is the crucial 20 percent of content that the learners *must* know when they leave this training?

5. What can they reference following the training?

Additional Suggested Resources

The tools and tips contained here were developed by practitioners working in the trenches in response to a need they felt was not being met by other resources. In practice, their work is supplemented, or perhaps inspired by, material from the training literature and more "famous" names in the field. For instance, an excellent diagnostic tool is Mager and Pipe's needs analysis flow chart, easily found in an Internet search, and there are myriad online resources for information on assorted learning style theories. For a comprehensive resource on the "analysis" phase of ADDIE, try Ron Zemke and Thomas Kramlinger's excellent book *Figuring Things Out* (Reading, MA: Addison Wesley, 1982).