Improving the Safety and Quality of Fresh Fruits and Vegetables: A Training Manual for Trainers

Section VI

Developing an Effective Training Course

Module 1	**Planning: Understanding Learners, Identifying Needs and Setting Objectives**
Module 2	**Preparing and Organizing the Course Content**
Module 3	**Conducting and Evaluating the Course**

Introduction

In Section I the importance of GAP and GMP training was discussed. Ample justification was presented for the need to teach new skills or raise the level of existing food safety skills for all workers involved in the fruit and vegetable industries. In this Section the discussion will focus on developing an effective training program.

A training program is a complex activity that must be carefully planned in order to be successful. Thorough planning, or the lack of planning, will be obvious to the audience. This Module details planning steps to develop an effective training program that can address company training needs.

Basic Principles

It is important for planners to identify the objectives and anticipated outcomes of the course. Training is conducted to help the trainees enhance their capabilities for better job performance. It involves the transfer of new knowledge and skills while encouraging positive behaviors and attitudes to perform specific roles in the workplace. If successful, the outcome will be better informed employees who perform their jobs properly to reduce safety risks.

Developing a successful training program requires many elements. A qualified and competent trainer is essential. The trainers, or the technical experts who teach the course, must have extensive knowledge of the subject areas and must be capable of sharing this knowledge in a manner that establishes their credibility with the audience. Trainers may be University Faculty, particularly Extension professionals, governmental officials, industry personnel, consultants or others with special skills relevant to the area of food safety. Company personnel also may be trainers but may require additional education and training to be qualified.

Another important element is organizing the logistics of the training course. Trainers need the support of dedicated planner(s) or coordinator(s) to ensure that all of the details of course preparation have been considered prior to the opening day of the course. The training support staff plays an essential "behind-the-scenes" role in ensuring that

effective delivery can be accomplished by setting up the training location, copying essential educational materials, and attending to details such as catering for breaks and lunch. Training logistics also requires scheduling the program at a time when trainees can attend. Agriculture is a highly seasonal industry. Selection of the appropriate time of year, day(s) of the week, or time of day will help ensure participation. Once the day and time are set, participants must be formally invited and encouraged to attend. This part of the training preparation may require more time than the delivery of the training course but is critical to success.

Lastly, a training program must be developed with the learner in mind. Understanding the needs of the learner allows a trainer to develop an educational program that has meaningful objectives that lead to the successful transfer of knowledge and skills. If a training program is not relevant to the learner, the value of the training is reduced and intended outcomes may not be achieved. Trainers should utilize the principles of adult learning when delivering a training program. Learning is strengthened when the message is delivered at the right level, when the message adds to or builds upon the trainees' existing knowledge, and the learner is motivated and has the desire to learn. This will help bring about the desired change and achieve training objectives.

Learner Attributes

The educational background and competence level of the trainees (learners) must be considered during planning. An audience might include managers and workers from the farms, packinghouses or warehouses, i.e., any people who are responsible for growing and handling fruits and vegetables. Managers are likely to have different needs than laborers. Coordinators and trainers alike must consider the specific goals and objectives for their audience and tailor the presentations accordingly.

Motivation

Trainers have the responsibility of motivating the trainees to be receptive to the course message, learn the material, and put into practice the lessons that have been learned.

This can only be accomplished by emphasizing the importance and benefits of the course in a context that is understandable to the trainees. Following are some examples of benefits from participating in training that can serve to motivate learners.

Trainers should emphasize that the course may result in immediate and direct personal benefits for the trainee. By learning and implementing food safety skills, attendees may gain prestige and/or increase their income to provide better livelihood for themselves and their families.

Fresh fruits and vegetables have been associated with outbreaks of illness, some of which caused deaths. The occurrence of an outbreak in a far away location, often in an economically advantaged country, may not be a powerful motivational message. Trainees could be asked to consider the impact of such an event in their own country and on their own families. Training provides food safety skills that participants can implement to help ensure the safety of fresh produce and prevent illnesses. The fact that participants' actions can directly and positively impact others, including their own families, can be a powerful motivation to implement new practices. This is a personal message that touches the hearts of most listeners.

Agriculture makes an important contribution to the economy of almost all countries. Food safety is important at every economic level, locally, nationally and internationally, because the delivery of unsafe food damages the reputation of the growers, handlers and the country itself. This message lets the workers know that their work is important not only to themselves but to the economy as well. As individuals, they still play a vital role in their industry and their actions can have economic consequences.

Finally, repeated emphasis of the fact that safety and quality controls are important at every stage in the food chain is essential to creating a culture of awareness. The chain is only as strong as the weakest link. Workers, managers, company executives and all others in the food business share equal responsibility for food safety. Everyone is important.

Needs Assessment

To ensure that information is delivered at the appropriate level the course planner(s) or coordinator(s) need to have as much advance information as possible about the existing level of knowledge that trainees have. During the course, trainers need to listen and be sensitive to the feedback from the target audience and adjust their delivery accordingly.

Perhaps one of the most important and often overlooked aspects of planning a training course is the needs assessment. This identifies the gap between "what is" and "what should be," it indicates what the training should focus on, and it helps to define the training objectives and selection of training activities.

The needs assessment also helps avoid common mistakes in training, such as including topics that are already familiar or have little relevance to the trainees, or omitting a topic that is important. Delivery may be tailored to resolve problems that the trainees may have with material and to overcome constraints for the implementation of new practices.

The trainer may have a perception of the trainees' needs but validation is essential. Validation can be facilitated by meeting with trainees in advance of the program, administering questionnaires, or reviewing key materials such as policy documents, annual reports, and evaluations of existing practices. The needs assessment ideally would be conducted in advance of the course. Even if it is performed in the initial stages of the course there will be time for trainers to make adjustments.

In essence, trainers must do their homework. All trainers, regardless of their perceived familiarity with the specific circumstances and working environment of the trainees, will benefit from a more in-depth and current needs assessment through field visits and discussions with supervisors and the trainees themselves. If nothing else, this effort will help overcome barriers to learning by demonstrating respect. Preparation is vital to the success of any training program.

Identify Participants

Identifying the target audience is important so that the needs of the learners can be determined. Target audiences may be identified in a number of ways.

In larger companies there may be a food safety officer who is responsible for training employees company-wide. Such an activity might also include a paid consultant to serve as a trainer. In this situation there may be separate courses for managers and workers because their needs are different. The managers would receive a train-the-trainer type of instruction with the objective that they would in turn deliver relevant information to workers. The training course

that the manager would deliver to workers likely would have a more narrow focus depending on the responsibilities of the trainees within the company.

Alternatively, external professional trainers might be approached by a group of persons with a specific need. This is a common occurrence for commodity organizations. Representatives from a well-organized commodity group, such as the tomato or leafy greens industry, might approach an Extension Specialist or a consultant to conduct training for a specific purpose. In this case, the organization likely would select key people from within the industry to attend the training.

As an example, a training program led by an Extension educator and organized by an industry group is attended by fresh produce growers, who are the target audience. Farmers carry out many of the tasks that affect the safety and quality of fresh produce, thus they are a primary audience for food safety training. Farmers generally have a great deal of knowledge and life experience about farming practices. The trainer can build upon this knowledge base by providing new information in such a way that the farmer can incorporate new practices into existing production systems. Trainers must recognize and respect farmers' expertise in order to establish a productive learning environment and avoid the appearance of being arrogant or insulting. Farmers are independent business people who make all of the decisions for their operations. They may come to the training with strong fixed ideas on the subject matter. These ideas may interfere with the acceptance of new information or the need for new skills. Identifying the ideas that interfere or are in conflict with the new information allows the trainer to directly address these concerns during the training. A well-reasoned presentation that addresses the growers' concerns will help ensure acceptance of new ideas and information. Farmers are, above all, practical thinkers. Trainers must provide real life examples in the context of current behaviors and practices so farmers understand how to implement new skills and practices.

Another example of a target audience is a packinghouse cleaning and sanitation (C&S) crew. This training could be conducted by a manager from within the company. It might include a discussion of mixing sanitation chemicals and specific worker safety protocols that must be adhered to while they work. It is likely that the sanitation crew is not involved in setting the standards for C&S or writing the SSOP, but they must follow company policies. It is the responsibility of planners and trainers to understand the

practices that learners need to know, the resources available to carry out the practices, and the concerns that may exist in order to conduct a successful training program.

Some audiences may have special needs that must be addressed in order to make training comfortable and accessible. Examples include audiences that have special dietary needs such as kosher foods, or audiences that have low literacy so they may require that educational materials be modified to be meaningful. Again, understanding the needs of the learners is a key to a successful training program.

Regardless of the manner in which the target audience is identified, it helps if everyone in the audience has similar needs. Attempting to conduct a training program where there are diverse needs and requirements can be very challenging. In this instance, it may be most efficient to break into smaller groups and deliver shorter, targeted training sessions.

Setting Objectives

Once a trainer had identified the target audience and the needs of the learners, specific training objectives should be identified. Training objectives state what will be accomplished as a result of the training. They are defined in light of the deficiencies in knowledge or practices that are identified in the process of needs assessment.

The objective for a training session might be as simple as raising awareness of food safety issues that are connected with the consumption of fresh produce. More complex objectives might state that trainees will display an understanding of certain concepts, demonstrate a given skill, or show a change in attitude. In an ideal food safety world the objective would be that the course would lead trainees to effect changes in behavior that would result in reduced food safety risks.

Course content, methods of instruction, training materials, lab exercises and evaluation strategies all are derived from identifying the training objectives. Without measurable objectives, learning cannot be successfully planned or evaluated.

Well-defined objectives serve to keep everyone, trainers and trainees alike, on the right track throughout the course. They provide the tangible link between needs assessment and the design and preparation of training materials. By determining if the objectives were met, the trainer can know if the course was successful in meeting the needs

of the trainees. Thus the objectives provide the basis for evaluation once the course is completed.

In converting needs into objectives, three areas of performance may be identified: skills, knowledge, and attitude. Skills-related objectives state what the trainee will be able to do as a result of the training. Knowledge-related objectives state how the participants' ability to identify or describe certain concepts will be improved following the training. Attitude objectives are more intuitive and can be difficult to define but often are judged by the degree of receptiveness to new concepts. Attitude evaluations can be done with a Likert scale, though trainer(s) should monitor changes in attitudes of trainees throughout the course to keep the training environment conducive to learning.

The trainer and the trainees should understand and agree on the objectives of the training course. It is a useful technique for the trainer to review the objectives at key moments during delivery to ensure that trainees are on track with achieving the objectives. When participants know what is expected of them they can organize their efforts more effectively and stay focused on training goals.

Summary

A training course is a complex activity that must be carefully planned. Careful planning, or the lack of planning, will impact the effectiveness of the training.

Support staff is an important part of any training because the staff organizes training logistics that impact the comfort and receptiveness of the learners.

Professional trainers must have the ability to motivate the audience to learn.

Emphasis on personal benefits to the trainee, health benefits for the consumer and economic benefits for the industry as well as the country are all useful messages to help motivate the audience.

An important part of planning is to identify the participants that are to be included in the course and to assess their needs. This will help the trainer plan an effective training.

The needs and competence level of the audience must be assessed as part of the planning.

Course objectives are prepared based on the needs of the trainees. These objectives provide a basis for evaluating the effectiveness of the course.

Improvements are expected in the trainees' skills, knowledge and attitudes as a result of course participation.

Introduction

The content of the training course should link directly with the subject areas identified in the needs assessment and the training objectives. The end result should be that the training content is presented at the correct level to meet the objectives and to ensure the best learning outcome for the trainees.

The Basic Outline

During the planning stage, it is useful to organize the course content in outline form to help prioritize the material and to determine the best sequence for the presentations. The training content and flow of information should be designed to present relevant information and maintain the interest of the audience.

In some instances the trainer may have a very clearly defined objective, even before the needs assessment. For example, when a new law or regulation is about to be implemented certain groups will need to be informed of the law and how their industry will be impacted. The trainees will need to know their specific responsibilities under the new rule(s). In this example the outline of the training session will be relatively simple and straightforward. Alternatively, if the needs are complex the trainer may need to spend a significant amount of time developing and refining the outline.

Each step in the outline and the corresponding presentation of the material may be organized into three main parts: introduction, body and conclusion(s). One or more messages may be presented in each session but the audience will be better engaged if the trainer stays within this format.

In the introduction, there should be opening statements that attract the attention of the trainees. The key points should be emphasized, such as the purpose of the session and the objectives, an outline of the information to be covered, how the material will be presented, how it will satisfy the purpose of the training, and the personal benefit to the trainees and the industry they serve. The trainer should acknowledge the skills that the trainees already possess and show how the session will reinforce and increase existing knowledge.

The body of the presentation should flow in a logical manner. The message should not be overloaded. Presentation of a few well-developed points will be more effective than attempting to cover too many points in a single session. If a large amount of material must be covered it may be necessary to modify the outline to break up the presentations into shorter segments for a more reasonable and logical approach. Remember, the adult attention span is approximately 20 minutes so long periods of lecturing may not be productive. The next section provides training method options that can be utilized to keep the audience engaged.

In the conclusion a summary of the main points should be made. New information should not be presented at this time. The trainer should close with a strong final statement. During the question and answer session the trainer should try to engage the audience in a discussion of the actions that trainees should expect to take as a result of the new things they have learned.

A trainer has the attention of the audience primarily at the beginning and the end of the session. Therefore the greatest impact will be achieved by making the key points in the introduction and summarizing them again in the conclusion. Public speakers are advised to "tell the audience what you are going to tell them, tell them, and then tell them what you told them." Repetition, within reason, reinforces the message.

Training Methods

Once the course content has been identified, outlined and prioritized, planners should consider the best method for delivery. This is a critically important part of planning.

A training method is a strategy or tactic that a trainer uses to deliver the message so that the trainees achieve the learning outcome defined by the course objectives. One or more training methods may be employed in a single presentation. It is good to use a variety of methods throughout the course to maintain the interest of the

trainees. Ten of the most common training methods are discussed here.

Lecture

A lecture is primarily an oral presentation but it may be supplemented with visual aids or handouts. It is perhaps the most common method for training because it is easy to organize, a large amount of material can be presented within a relatively short time and it is suitable for either small or large groups of trainees. Lecturing involves delivery of information in one direction from the trainer to the trainees.

Lecture/Discussion

This is a variation of the lecture whereby the trainer encourages trainee participation through facilitation of discussion. In a formal setting the discussion may be restricted to specific times during the session. If the trainer is comfortable with an informal approach he or she may encourage questions and discussion throughout the presentation. The trainer may initiate discussion through the use of questions or by extending an invitation to the trainees to share their experiences with specific points covered during the session. It is the responsibility of the trainer to keep the discussion on track by choosing questions carefully and by steering discussion toward the topic at hand. This can be difficult if audience members are unhappy or wanting to discuss topics outside the scope of the presentation.

Demonstration

Demonstrations entail oral explanations combined with visual or tactile activities. Method demonstrations show processes, concepts and facts. These are effective in teaching a skill that can be observed. A result demonstration shows the outcome of some practice or innovation such as sanitizing treatments for water or a cleaning treatment for product. A demonstration may involve mixing methods and result demonstrations and may include hands-on activities for participants. The important point is that learning is reinforced by providing the trainees a visual or tactile activity.

Group Discussion

In this method the trainer leads the trainees through a group discussion of a given topic. The discussion may be preceded by a short explanatory lecture or it may be spontaneous if the trainer sees an opportunity during the session to reinforce learning. Trainees are afforded an opportunity to share personal experiences with the group, which in turn may critique the information in a positive and constructive way. As always, the trainer must maintain control of the discussion.

Symposium

This is a series of lectures presided over by a moderator. It allows several experts to present different points of view or to discuss different topics related to a common theme. Typically in a symposium the audience would have an opportunity to question or address the speakers at some point.

Panel

This is a dialogue among several experts sitting in the front of a room. A moderator would coordinate the discussion and may pose questions to the panel if discussion is lacking. This differs from a symposium in that panel members have an opportunity to discuss and interact with each other regarding their ideas and points of view. Audience participation may be permitted but must be controlled by the moderator.

Forum

Following one or more presentations, a forum allows the audience an opportunity to interact with the speakers and discuss the topics. This can elicit a wider range of views. If the subject matter is controversial, for example the introduction of a new food safety law, the discussion may become contentious and the moderator must be prepared to mediate.

Discussion Groups

This involves every member of the audience, which is divided into groups of typically 4 to 20 people. Groups may be assigned a leader or may be asked to elect a leader. Typically groups are assigned a specific topic and/or asked to develop a list of problems, issues, priorities, or questions. After the discussion, the group will report the outcome of their discussion to the main audience. Discussion groups have the advantage of encouraging and allowing every individual to participate, even if the main audience is large. Groups should be monitored during the activity to ensure that no one person is dominating the discussion and that the discussion groups are making progress in the intended areas.

Case Studies

Information is provided to trainees about a specific situation or problem. They are assigned, either as individuals or as groups, the task of analyzing the information and developing recommendations for the most appropriate action to solve the problem. This introduces a practical aspect into the training process and creates a problem solving situation, which allows them to apply knowledge they may have gained during the training. Case studies also provide an opportunity for trainees to draw from their own experiences, share the information with others and work as a team.

Field Visits

A visit to an organization or workplace such as a farm or packinghouse can be invaluable for demonstrating the practical value of the material that trainees are learning in the classroom. The owners and/or managers of the site must be informed of the purpose of the visit and policies about taking photographs or exposure to proprietary information must be discussed in advance. Trainees must be properly prepared. They should be informed of company policies and be willing to conform to same. The trainees are asked to make specific observations and be prepared to discuss those when they return to the classroom.

Several of the training methods defined above are utilized in the JIFSAN Train the Trainer course. By employing a combination of methods, trainers can present the scientific basis for practical exercises and trainees have opportunities to observe the application of the science in the work environment.

Factors to Consider when Selecting a Training Method

Planners must consider a number of factors when choosing the method(s) for conducting the training course.

The size of the audience is a very important consideration. Larger audiences may require a more formal structure, e.g., lectures, with less audience participation due to time constraints. This presents a challenge for maintaining the interest of the trainees. Insertion of a variety of methods such as group activities and brief discussion sessions will help to keep the trainees engaged in the course.

Available resources and the infrastructure of the training environment must be considered. If resources such as transportation and funding are limited it may not be feasible to use resource-intensive techniques such as site visits or elaborate demonstrations. The infrastructure may be limited to a single lecture room, in which case group activities will need to be carefully planned to ensure that they are effectively executed.

The amount of time available for conducting the course may limit the amount of information that can be presented and the methods employed. Planners must give adequate time to prioritizing the subjects that will be discussed. Lecture-oriented methods allow the most information to be delivered in the least amount of time. Group activities, case studies, etc., require considerably more time. Course objectives must be balanced with the available time to choose appropriate training methods.

The experience and proficiency of the trainer should be known to the planners. Public speaking skills and the ability to interact with the audience are critical to effective delivery. The trainer must be aware of the expectations of the audience and be comfortable with the teaching methods that have been chosen.

Finally, planners must consider the need for training aids to support each method and the time and resources required to produce the materials. Training aids must be made available to trainers well in advance of the course to allow for adequate time to prepare the delivery. Planning and preparation enables the trainer to project confidence and control throughout the session.

In preparing for a course or a single presentation, remember the 5 "P"s: Proper Planning Prevents Poor Performance. It will be obvious to trainees if planning is well done and it will be painfully obvious if planning is not well done.

To provide an example of a situation that uses multiple training methods, consider training regarding the use of field sanitation units. The trainer might begin in the classroom with a lecture and photographs describing the appropriate design of a unit, the supplies that the company must provide and an overview of appropriate employee practices. The lecture could be followed by a group discussion about the practical issues and social attitudes that discourage the use of the units and how these obstacles could be overcome by managers in the field. During the site visit, trainees could assess the situation involving the units in the field and determine how best to implement appropriate practices if they are not already in place. Trainees should look for positive as well as negative behavior. In a follow-up meeting at the site, or after returning to the classroom, trainees may discuss the overall

experience and identify areas of concern that require further training.

Preparation of Training Materials

Research has shown that learning is enhanced when trainees are required to use at least three of the five senses. The trainer(s) should attempt to employ training methods that appeal to the senses of sight, hearing, smell, taste and touch.

In general, instruction by spoken or written word is more effective when it is supported by methods that stimulate the other senses. When trainees participate with hands-on exercises the symbolism of words is converted to images within the learners' minds. Visual aids and hands-on activities help transform an abstract concept into a practical reality that enhances the process of storing the information in the long-term memory, e.g., improves retention and recall. This is illustrated in the graphic below. Material that is presented orally is retained by only 10% of the listeners. Visual information is retained by 35% of the learners, but a combination of oral plus visual presentation increases retention to 65%.
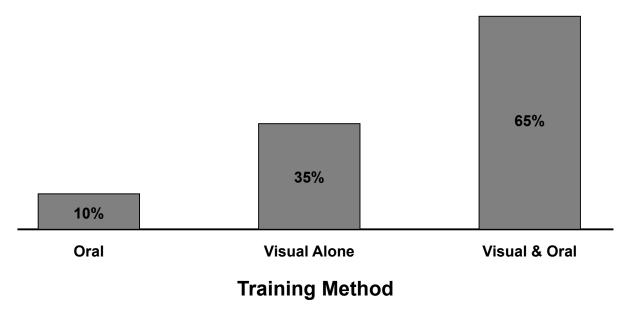
Training aids refer to all forms of educational materials prepared for use in a training program. As shown above, carefully chosen, well-prepared materials can make an important contribution to effective training, especially if the information is presented in a logical, clear manner with emphasis on the most important points. This makes it easier for the learner to understand and retain the message.

When developing training aids, the trainer must consider the message from the perspective of the learner. If the trainee is seeing the information for the first time, what can be done to make the presentation flow smoothly and enhance the learning experience? Training aids assist in several ways. They give visual reinforcement and help to clarify points that may not have been clearly spoken by the presenter. Anything that can be quantified or is factual can be presented visually. This brings a more relaxed atmosphere to the classroom and facilitates learning.

Visual aids should be tested on others before using them in the classroom. It also is important to check the availability and functionality of equipment required for visual aids as part of planning and on the day of the course, before participants arrive. The development of data projectors and PowerPoint technology has dramatically improved the way information is presented but these technologies can fail and should be tested.

A variety of print materials can be used to enhance learning. These may include handouts, summary notes, workbooks or manuals. The advantages of printed materials include the option of providing additional information beyond the oral delivery. They can reduce note taking and they provide reference material for the trainee to take home for use after the course is over. A disadvantage is that they may distract from the trainer. Care should be taken not to overwhelm the trainees with too much printed information that might cause them to lose focus on the trainer.

Percentage of Learners Retaining Knowledge

Training Method

Organizing the Delivery of the Training

All of the planning for course content, delivery methods, and supporting materials eventually places the burden of delivery on the individual trainer(s). Each trainer should attempt to visualize the flow of the course before it begins, taking time to consider potential questions from the audience or problems that might arise during the delivery. The more prepared the trainer is, the more relaxed he or she will be during the presentation of information.

The trainer should consider how each topic will be introduced and whether it should begin with a powerful declarative statement or with a question to the audience. The trainer also should choose the most appropriate method of delivery to strengthen the message. If questions to the audience are to be used to provoke discussion, the trainer should decide in advance what to ask and should try to anticipate what the responses from the audience might be. The trainer also must decide the appropriate times to take breaks and be sensitive to the mood and body language of the audience in case adjustments to break periods are needed.

A schedule or program for the course should be developed and made available to the audience. The trainer should have a copy at the podium since the program has the time allowed for presentations, the scheduled break times, and other organizational information. Every attempt should be made to stay on schedule since the trainees may be trying to balance work responsibilities with their participation in the course.

A cell phone policy during training time should be emphasized. At a minimum, phones should be placed on silent or vibration mode. It is extremely distracting for everyone when a trainee takes a call during a session.

The program is essentially the final draft of the outline that was used to develop the course. The program guides the trainer in leading the course, organizes the flow of information, and ensures a balance between theoretical information and practical sessions. Further, the program helps prevent repetition of information between different trainers, states the allowed time for the sessions and for breaks, and helps ensure the interest and motivation of the trainees by keeping them informed of the plan for the day.

Attention spans vary from person to person, with the subject matter involved, with the comfort of the training facility, with the skills of the trainer, and with any number of other variables in the training environment. Under ideal circumstances about 20 minutes is the maximum time recommended for an oral presentation and 45 minutes for a practical session or a case study. In reality, much longer times are needed for the delivery of complicated material. It is the trainer's responsibility to allow time for adequate interaction with the audience when using questions, leading discussions, conducting exercises or using visual aids.

The use of demonstrations, illustrations or question periods during a lecture will help to break the monotony that can occur during a long oral session. It is important, however, that the change to a different method of delivery supports the main body of the message. Time must also be allowed periodically for trainees to stretch their legs and use the toilet facilities.

An experienced trainer will be attentive to the audience at all times and make adjustments in the program if he or she perceives the need to do so. An audience that is not comfortable will not learn as much as a group that feels comfortable with the instructor and with the training environment.

Summary

The content of the training course links directly to the areas identified in the needs assessment and identification of training objectives.

Preparing and organizing the content of a training course should begin with an outline that will be revised several times until the final program is decided upon.

Each session in the outline should have an introduction, the body of the message and a conclusion.

In the introduction, the trainer may begin by stating objectives and telling the audience what will be covered. The body of the presentation includes content details and in the conclusion the main concepts will be reviewed.

Ten common methods of information delivery were identified in this Module. Planners and trainers should work together to choose the method(s) that will be most effective for each session.

When choosing a delivery method, trainers must consider the size of the audience, available resources and infrastructure, the time available to cover the material and the need for training aids.

Remember the 5 "P"s: Proper Planning Prevents Poor Performance.

Trainees will retain and recall information better when the delivery method stimulates several of the five senses. The combination of oral and visual presentations is over six times more effective than oral delivery alone.

When preparing their delivery, trainers should try to visualize themselves in the place of the trainee and choose methods that will be most effective.

The trainer will be more effective by having a copy of the program at the podium and following the plan as closely as possible. An expert trainer will sense the mood of the audience and make adjustments in delivery when necessary.

Introduction

Once the planning and organization is completed it is time for trainers and trainees to come together and conduct the course. Success in meeting the course objectives now depends on effective delivery. This Module addresses key considerations for ensuring that the course meets the needs of the audience. Significant focus will be placed on how to evaluate a course to determine trainee learning and course effectiveness. Evaluation allows for continuous improvement of the course and provides critical feedback for trainers.

Using a Training Team

If a training course requires several hours, several days, or if a variety of topics will be covered, the planners should consider organizing a team to complete the delivery. It can be difficult for a single speaker to hold the attention of the audience for an extended period of time. The team approach gives trainees a break from hearing only one presenter and it offers the significant advantage of drawing upon the expertise of different experts in the room.

Planners should select team members that have complementary styles, skills and knowledge. All trainers must be technically competent in their subject area and have experience in training. Credibility must be established with the trainees in order to gain their respect and facilitate learning. In addition to being technically competent, the trainers must be familiar with the real circumstances in which the trainees work and the problems they face.

Trainers must be willing to participate in the total training activity. It makes a bad impression upon trainees if a trainer leaves the course immediately after delivering his or her presentation(s). Trainers may be called upon to add comment to a co-trainer's topic, contribute as needed to practical exercises, or prepare for an additional training session if one is needed. They also should be available to interact with trainees during breaks, meals and at other free times between the training sessions.

In team teaching it is advantageous to have a leader or facilitator to coordinate the course. The leader may be responsible for the selection of the team members and should create a teamwork atmosphere by taking steps to ensure that all trainers know each other. During planning, the team leader may need to arrange for meetings or conference calls with planners and team members to assess the progress of planning and determine when changes or improvements are needed.

The facilitator provides leadership in developing the course schedule or program and briefing team members on their roles during course delivery. It is important that co-trainers understand and agree upon the course objectives. They should take time to become familiar with each other's strengths and use each other as a resource. The leader will provide team members information about the participants and local circumstances so that everyone can prepare their deliveries appropriately. Any ethnic or cultural concerns should be addressed during these planning sessions.

Logistical Support

In addition to the extensive planning and preparation discussed previously, there are logistical arrangements that must be considered before, during and after the course. The planner, facilitator, and co-trainers if a team is involved all should be engaged in assuring that these arrangements are in place and satisfactory to accommodate each session of the course.

Before the Training

Assure that travel and hotel accommodations have been made for the instructor(s), trainees and interpreters if they are required. A suitable contract or agreement with the interpreters should be in place. If transportation is needed for a field trip this also should be planned in advance.

Select a suitable venue. Ideally the lecture room should be well lit and well-ventilated with adequate space away from sources of noise or other distractions. Seating arrangements, tables, etc., should be comfortable.

Trainees should be identified through appropriate channels and notified of the dates, times and location of the course.

Training material, including handouts, visual aids, manuals, etc., should be prepared.

Assure the availability of appropriate training equipment. This may include various types of projectors (LCD, slide and/or overhead) and spare bulbs, a screen, computer(s), microphone(s), chalkboard and chalk, flip charts, writing materials, etc. It is distracting for the audience if any equipment or supplies have to be found after the course has started.

Organize the training room. Seating arrangements, name cards, and position and functionality of the equipment should be checked. Trainers should decide where they will stand or sit during their presentations. They should be positioned for maximum visibility for the audience and in a convenient location for the interpreters to see them and any visual aids they will use.

Coffee breaks and meal breaks should be planned. The location of restrooms should be noted and announced to the audience at the beginning of the course.

During the Training

In a team-teaching setting, the facilitator or team leader will take charge when the course begins. This may follow an opening session led by a local organizer or official. The team leader will introduce and thank the trainers, introduce visitors and have trainees introduce themselves.

As the program proceeds, the leader will be vigilant in monitoring the functionality of equipment and availability of supplies. He or she will be sure that course materials are distributed and remind other trainers of the times for their presentations. All members of the training team should assist the leader with these duties to ensure that the course moves as smoothly as possible.

Following the Training

After all presentations have been delivered and the course evaluation (discussed later) is completed, a formal closing ceremony may be held. Often certificates of course completion are awarded to trainees. It is extremely important that trainer(s) and trainees alike all are in attendance and that each trainee is congratulated individually for his or her participation. Trainees should leave the course with a sense of accomplishment and the knowledge that they are prepared to make use of the valuable information that they have learned.

Leave the room tidy and return equipment and teaching aids to their proper locations. Compile any comments, feedback or evaluations from course participants. Prepare thank you letters as needed for guest speakers, volunteers, etc. Prepare the final report on the course. Be sure that all trainers receive a copy of the compiled evaluations so that they may continually improve content and their presentation approach.

Checklists

Even the most experienced trainer or team leader can forget something important. Checklists are a useful tool for reminding trainers of the details that need to be attended to from planning until the course responsibilities all are completed.

A sample checklist for the day before a training course might include a visit to the training room to learn how to control lights and air conditioning, check the arrangement of furniture, confirm catering arrangements for breaks and lunches, and check the functionality of all equipment and the availability of supplies.

For a field exercise, a visit to the farm or packinghouse, the day before should include a check of scheduling to confirm that time is budgeted reasonably, ensure that work will be in progress during the visit, and verify the practices that trainees need to observe. Explain the objectives for the visit to the owner or manager and review any rules the company has regarding photos or behavior of the group during the visit.

Although a mention of checklists here may seem overly simplistic and merely common sense, all of us have attended meetings at some time when details were overlooked. Attention to detail is an important part of planning and execution of any program.

Course Evaluation

Although course evaluation is presented as the final topic on developing effective training, it is important to plan the evaluation strategy well before the training takes place. Evaluation is not merely an exercise at the end of the course, but rather is an ongoing process throughout the course that allows the trainer(s) to assess how well the course is progressing and that the objectives are being met.

Training evaluation has been defined as a systematic process for collecting information for and about a training activity, which can then be used for guiding decision

making and for assessing the relevance and effectiveness of various training components. It gives a measure of the extent to which the training has been successful in accomplishing the course objectives. Evaluation methods result in feedback from the trainees and allows for continual improvement of the program.

Evaluation strategies have been categorized into four distinct groups: pre-training, process, terminal and follow-up. The choice of evaluation strategy depends upon the purpose of the evaluation.

Pre-training Evaluation

This occurs during course development and allows for pre-testing the adequacy, scope and coverage of the training program while it is still in preparation. It serves to identify shortcomings of the training and allows corrective steps at an early stage. Pilot tests of presentations are part of the pre-training evaluation.

Process Evaluation

This is conducted while the course is in progress. An ongoing assessment allows for adaptations to be made during the course as needs are identified. This evaluation may involve a formal procedure where feedback is requested from trainees at the end of each day, each session or on some other relevant schedule. It may also include observations from the trainer(s) regarding trainees' responses.

Terminal Evaluation

A terminal evaluation is conducted upon completion of the course. This is the most commonly employed evaluation strategy. It allows trainees to give feedback on the usefulness of the training, the quality of instruction, if objectives were met, and on aspects that could be improved for future courses. This gives the trainer(s) an immediate idea of the course effectiveness. A test administered at the beginning of the course and again at the end of the course gives trainers additional insight on knowledge gained by trainees.

Follow-up Evaluation

Ideally, a follow-up evaluation is conducted at some point after the training. Unfortunately follow-up evaluations often are forgotten after the course is over. Since a training program is conducted to bring about changes in behavior or attitudes related to working methods of the trainees,

the course effectiveness is best assessed after a period of time has lapsed. Two months is suggested as a reasonable time since the course material hopefully would still be remembered by the trainees and sufficient time will have passed to determine if permanent behavioral change has occurred. This allows for the implementation of the work to be assessed.

It may be difficult to quantify long-term results but there are some specific questions that can give valuable insight. For example, in a follow-up evaluation of a Train the Trainer course it is reasonable to ask the course participants how many programs they conducted and how many people received training based on the course material. They may also be asked how many workers exhibited changes in behavior as a result of being trained. For a food safety course, it would be ideal if a reduction in foodborne illness could be quantified as a result of training, but these data are difficult to collect because quantifying prevention is impossible.

Four criteria have been suggested to evaluate training programs: reaction, learning, behavior and results. Each criterion is used to measure different aspects of the training program.

Reaction measures how trainees liked the program in terms of content, duration, trainers, facilities, and management.

Learning measures the trainees' skills and the knowledge they gained from the course.

Behavior is concerned with the extent to which trainees were able to apply the new knowledge to real work situations.

Results are concerned with the tangible impact of the training program on individuals, their job environment or the organization as a whole.

Evaluation can be informal or formal. Informally, trainer(s) observe feedback from trainees through the tone of language, questions, interest and enthusiasm for the topic. The trainer(s) may request more formal feedback by asking questions to assess the trainees' understanding and appreciation of the subject matter. Common formal evaluation methods include written evaluations, a questionnaire completed by the trainee or a structured interview with the trainee.

Evaluations should be analyzed. This will allow the trainer(s) to amend and improve materials for subsequent training. It may also identify deficiencies in training that

need to be addressed. It is essential that the best use is made of all feedback received and that it is not simply an exercise on paper.

In addition to feedback from the trainees, self-evaluation by the trainer also is essential. Every time training is conducted, a trainer should consider how he or she functioned as a trainer and make adjustments for future programs. If a team teaching approach is used, team members should be asked for input regarding training organization and effectiveness. A meeting of the teaching team after the course, with open and honest dialogue, is a good way to conduct this evaluation.

Trainers sometime view the evaluation process as a necessary nuisance with little value. This is unfortunate since evaluation can be an effective tool for measuring how well objectives were achieved, improving the efficiency of training to allow better use of limited resources, highlighting the value of the course, increasing the organization's commitment to the process and fostering interest in training at all levels within the organization.

Summary

If the training course entails a considerable length of time the planners should consider organizing a team to complete the delivery.

Training team members must be committed to the course, must understand the objectives, and should draw upon the varied expertise that different individuals bring to the classroom.

In a team environment, one person should assume the role of team leader or facilitator.

Logistical support is needed from the planners and all team members before, during and after the training program. Attention to details is needed at all phases.

Checklists are a useful tool for keeping track of the many details involved in a training course.

Evaluation is a critical process that is conducted at all stages of the training program, from pre-training through the training process to the end of the program and as a follow-up exercise.

Evaluation from the trainees and self-evaluation by the trainer(s) will allow for constant improvement of the course.