



Training Committee

REVIEW OF AGENCY NEEDS RELATIVE TO TRAINING DELIVERY FORMAT OPTIONS October 2011

PURPOSES OF SURVEY

1. Identify prevailing air pollution control agency staff opinions about how best to meet future training delivery needs with consideration of current budget and travel complications.
2. Make recommendations to the Training Committee about how to approach future course development and updates from a delivery format standpoint.

SURVEY COORDINATORS

- Alice Lutrey, MARAMA
- John Hornback, Metro 4/SESARM

WHO WE SURVEYED

- Metro 4/SESARM local and state agencies – September 1, 2011
- LADCO state agencies - September 14, 2011
- MARAMA local and state agencies – October 19, 2011

WHAT WE LEARNED

1. Classroom format is still the preferred delivery option for the majority of individuals providing comment during this survey and overshadowed budgeting and travel issues.
2. Prevalent reasons for preferring classroom format include:
 - a. Training is perceived as more effective with classroom format.
 - b. Complex subjects require a classroom setting.
 - c. Students prefer direct interaction with the instructor.
 - d. Students prefer to be able to pose questions and get immediate answers.
 - e. Problem-solving exercises in group format are useful and work best in a classroom format.

- f. A classroom setting allows hands-on training regarding certain equipment such as stack testing equipment.
 - g. Field visits are a highly effective component of CARB 200 courses. Without a course being delivered in a classroom, the accompanying field trip would not be feasible.
3. There is significant resistance to e-learning for several reasons:
 - a. Veteran employees have a negative mindset about e-learning.
 - b. Most courses are not broken into small enough modules (45-60 minutes) to allow for breaks to refocus and reenergize.
 - c. E-learning is perceived to be too impersonal and inhibits interaction.
 4. E-learning is a very comfortable way of learning for newer employees.
 5. Providing the opportunity for a trip to a course somewhere away from the official work station is a perk that is appreciated by many employees who are not getting much else in the way of rewards and benefits these days.
 6. There is a feeling in some agencies that more tenured staff do not need much training.
 7. Budgeting and travel restrictions are serious challenges to training as is lost time at work stations.
 8. There are varying levels of commitment to training within the agencies and many staff are pulled away from computer-based training due to interruptions and work assignments.

CONCLUSIONS

1. Many staff are not able to have access to needed training in a timely fashion, if at all, under the current classroom presentation approach. Having more staff properly trained in a timely manner is desirable. This problem must be addressed.
2. Classroom training is perceived as more effective than other training formats.
3. Classroom training is generally more expensive, when all embedded costs are included such as host facility, instructional services, travel, and time out of the office.
4. E-learning is perceived as less effective but the degree of lost effectiveness lost is not substantial enough to suggest that e-learning is not the format of choice for most courses.
5. E-learning is the future and the future is now.
6. Budget and travel restrictions and available personnel resource concerns are a reality and will continue to be issues for the foreseeable future.

7. Staff resistance to e-learning can probably be overcome with proper planning and demonstrations of the flexibilities of e-learning.
8. The classroom training option should be retained and can probably be retained at minimal additional cost.
9. Facilitation at the local level can overcome many of the biases against e-learning. In fact, most e-learning settings can accommodate discussions and problem-solving at the agency location that will approximate what could be experienced in a formal classroom.
10. E-learning needs to be compartmentalized into shorter modules of 45 minutes to an hour even if full completion takes days or weeks.
11. Adequate facilitation guidance and assignment of a facilitator to most e-learning is essential.
12. The cost of implementing a new approach to course delivery will be significant and can only occur over a period of 5-10 years or maybe a longer period.

RECOMMENDATIONS

1. All courses should have an introduction, background, terminology, and basics component that can be presented electronically through what we might call a prerequisite self-instructional module.
2. The core of all courses should be designed to allow presentation of detailed subject matter using an e-learning approach that combines web-based and other electronic media-based alternatives.
3. After development of the e-learning capability for each course, materials for classroom presentation should also be created. This should be simple and relatively inexpensive to do after the information is constructed for the e-learning version.
4. All courses should be presented in classroom format at least once and videotaped. The classroom courses need to be editable into shorter-term modules for e-learning use.
5. Negotiations will need to be held with instructors to ensure that their work can be used in repeated fashion via CD, web, or other media.
6. Videotaping of industrial processes and control devices should be accomplished where possible and to the extent that business and industry permission for such videotaping can be granted. This must take into account safety and the rights of facilities to protect their proprietary processes. These videotapes can be incorporated into e-learning and classroom delivery.
7. Every agency should assign a mentor, supervisor, and/or facilitator to assist their staff in learning the subject areas covered by a course. Agencies should create problem-solving groups when larger numbers of students are present for a training opportunity. The agency should take the general information that is presented in whatever format and personalize it to its students using its laws, regulations, and policies, through additional on-site presentations and/or course exercises that will be specified in the course facilitation guide.

8. Every agency should identify dedicated facilities to host on-site training or otherwise isolate staff for defined amounts of training time. This will ensure the proper amount of personal focus and facilitation necessary to produce the most effective training result.
9. Implementation of a plan to accomplish the recommendations of this review should begin immediately with further discussions about how to fund and oversee the effort over the coming years.

LONG-TERM VISION

1. Agency staff will have access to training when they need it.
2. E-learning will be incorporated into every subject area and training opportunity.
3. Facilitation guides will be available for all courses and mentors and/or facilitators will be provided.
4. Classroom presentations will remain an option. Agencies with the need, preference, and resources individually or collectively to send staff to a classroom presentation should always have that opportunity.
5. Agencies will redevelop their training programs around modern technologies.
6. Agencies will have dedicated facilities where students can take courses individually or in groups, away from their desks.
7. Agencies will provide facilitated training, regardless of the delivery format that is available for a specific course.
8. Agencies will reduce the cost of training individual staff members by avoiding much of the expense for travel away from the work station.
9. Agencies will conserve staffing resources by reducing the amount of time that staff are out of the office for training purposes.

Note: John Hornback is the primary source of the notes, compilation, observations, conclusions, and recommendation of this report. The Training Committee should be given an opportunity to refine the information herein and endorse a revised final product.