WORKSHOP SESSION SUMMARY
NIEHS NATIONAL TRAINERS' EXCHANGE
MARCH 2012

1. Session Title and Presenter's Contact Information:
   "Embracing Technology in the Classroom"
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2. Workshop Summary

The objectives of this workshop are to:

1) Introduce some new technologies that can be used to enhance worker training in the classroom and in the field;
2) Discuss appropriate and inappropriate uses of these technologies; and,
3) List the challenges and obstacles to incorporating new technologies into existing curricula.

The development of the Rail Workers Hazardous Materials Training Program (RWHMTP) over two decades is an example of the hurdles and the successes that accompany technological changes.

3. Methods

This presentation combines lecture with PowerPoint visual aids and small group discussion. The session incorporates PowerCom audience polling technology embedded in traditional PowerPoint presentation and the use of convertible tablet PCs, standard laptop computers, and easel pads to demonstrate a variety of interactive tools.

For small group discussion on different technologies that the participants have adopted in their training programs, each group is a assigned a different technology for scribing – easel pad, laptop text document, convertible tablet PC inking program. Wireless projection allows groups using laptop and tablet PC to display their reports, while groups with easel pads use their handwritten sheets during reportback.

Individual "clickers" allow participants to record responses to evaluation questions at the beginning and end of the session, assisting presenters' initial audience evaluation and final evaluation.

4. Main Points

Presentation should include the following:

- A variety of new technologies are available that can enhance the learning experience of workers. These include presentation technologies that add to the sensory experience with photographs, audio, & video; wireless solutions that free trainers from the front of the room during presentations; electronic media that can reduce the volume of paper in the classroom while allowing students to take away a wealth of resources.
- Incorporation of any new technology can be fraught with challenges. One example from the past was the use of carousel projectors, which greatly expanded the use of photographs in training programs, but was accompanied with the challenge of getting the slides in the right order and correct orientation. Another example is video embedded in Powerpoint, which can be problematic if file paths are corrupted or encoding files are not updated; however, its predecessors – film reels and video cassettes – also had their challenges!
- Technology upgrades should be considered only if they support the objectives of the curricula and enhance learner-centered training. The bells & whistles should enhance, not distract from, the learning process.
- Delivery method flows from learning objectives and the needs of the audience.

Responses from the participants

- The session generated debate over the advantages and disadvantages of technological changes from the point of view of the NIEHS minimum criteria. How do we take advantage of some of these new technologies to more efficiently present our curricula without inadvertently reducing the interactive quality of the training?

5. References

6. Workshop Handouts/ Resources

PowerPoint: Embracing Technology in the Classroom