EH&S Advisor

Moving Beyond "Talking Heads" Education

by Richard MacLean, Competitive Environment Inc.

One of the most important roles that environmental, health, and safety professionals share is that of educator. The woeful cry of too many of our colleagues is, "If only they'd just get it." "They" might be executive management, employees with EH&S responsibilities, the community, or for that matter, just about any stakeholder unfamiliar with EH&S issues. Sorry, readers, if they are clueless, it may be because we are poor educators.

This month, EH&S Advisor *takes a look at adult education. There is more to it than you may think. Unfortunately, our role model of how to educate is based on the primary and secondary education system that we endured while growing up. Talking heads—the foundation of how we were taught—does not cut it with adults. There are better techniques.*

Most of us were taught by the all-knowing teacher/professor who stood at the front of the class telling us what we were supposed to know. You knew the drill: respond when asked and cram (aka memorize) for the next round of tests. You endured boring lectures because you were a captive of the system. Learning took a back seat to keeping your eyes on the prize—a diploma.

Some would say that we are at the opposite extreme today: Educators have lost all control over the classroom. Some of this "loosening up" is clearly for the better; some is clearly not, such as when students undergo existential visioning of why 2+2 = 7 and pass the test because they believe in their heart the answer is correct and they work hard to achieve group consensus.

The first lesson in adult education is that adults do not have to put up with the torture they suffered in their youth. This is a key point that might be overlooked by EH&S professionals, but certainly not by professional educators. The transformation from child education to adult education is a big step. Keeping adults engaged is not easy, and entertaining them may keep their interest, but is not an effective technique for genuine learning.

Successful education occurs when students are actively focused, participating, and thinking, not just going through the motions of showing up and occupying a seat. The bottom line is that whenever education is turned into effective training, you get superior results. There is a world of difference between education and training, and if you ever get confused about the difference, just ask yourself, "Will I allow my children to receive sex training at school?"

Education has a more lofty sound to it, but some of the finest graduate schools in the world are moving toward educational systems that involve active "hands on" experimentation—training, so to speak—instead of the traditional teacher-dominated lecture model. Harvard Business School, famous for its business case method in which students are given background material from which they must work through the what-ifs and formulate a working strategy, employs a full staff of professional case writers and pays them from the proceeds of the sale of their material.

Dr. Robert Pojasek is an adjunct faculty member with the Harvard School of Public Health.[1] He teaches students to use problem-solving and decision-making tools for addressing opportunities to improve the way we address environment, health, and safety issues. In his courses, participants work on cases and outside projects to demonstrate their use of the tools and to effect change in an organization. Whether you see it as solving problems or realizing opportunities, it is a skill that must be learned and demonstrated before you can successfully put it into action.

By letting the students exercise their newfound skills with a team of peers, they see the power behind this problem-solving approach. Professors often avoid using the case method because of the additional work that is necessary to prepare for the course and the difficulty of the questions asked by students when they begin to develop skills in using the materials. Adjunct professors may have an advantage in that they can extract case content from their work assignments.

On the home front, my daughter is enrolled in a new program at the University of Southern California School of Dentistry, called Problem Based Learning. PBL abandons the traditional dental/medical school approach, whereby students

memorize facts that they regurgitate on exams, then soon forget. Dr. Alan Fincham, one of PBL's founders at USC, has this quote over his desk: "If I give you the answer, I forever deny you the chance to learn." This sums up the PBL curriculum: student-centered and inquiry-based. Students work in small groups to direct their own learning about the fundamental basic and clinical sciences. As a result, students tend to better retain information and have even outperformed students taught by traditional methods on the National Board Exam for dentistry.

THE SCIENCE OF ADULT EDUCATION

I did not fully appreciate these distinctions until I was exposed to some of the best education program developers in the world at General Electric's Crotonville, NY, education facility (think of it as GE-U). What amazed me was that there is genuine science to the business of educating adults. I thought you just told people what they needed to know and let them ask questions.

Unfortunately, most conferences are modeled on an expert-lecturing-to-student structure. To be fair, meeting with hundreds of audience participants offers little room for alternative approaches and the objectives of a conference are fundamentally different. That said, we may vividly recall the rare conference speaker that went out of their way to actively engage their audience, if only for a few moments.

Equally surprising was the fact that high-end course designers and facilitators at Crotonville made more money than most EH&S professionals. There is not only a science to it, but the best educators have interpersonal skills that few can hope to master. The basics of adult education they taught me are as follows:

1. The subject matter must be relevant. Adults seek out learning to cope with new threats or opportunities that are perceived as real, significant, and impending. For most, it is a means to an end, not an end in and of itself. You may be thrilled with the subject matter, but what's its relevance to the audience? Increasing one's self-esteem is a secondary, but nevertheless key, factor. If enriching knowledge will do something to improve the person's position or self-esteem, the more likely they will become fully engaged in the process.
2. The learning experience must provide opportunities to practice and apply this new knowledge. Adults tend to avoid general knowledge or "survey courses," preferring focused learning that is heavy on application. That's why "how-to" courses are among the most popular. They need to integrate new ideas with what they already know, which means that they need to actively participate. The more the material conflicts or does not overlap with preexisting ideas, the slower the learning process. Adults take errors personally, so they try to be more accurate and take fewer risks.
3. Adults want to be actively involved in setting the learning process. They want some say over the program direction, since they rightfully believe that they have valuable life experiences to add. They want to be comfortable, both physically and psychologically. Returning to the old lecture hall to be talked down to is a real turn-off.
4. The process must be competently facilitated and managed. Open-ended questions can draw out relevant knowledge and minimize lecturing. Balancing is the name of the game: presentation of new material, debate, discussion, and sharing of relevant experiences using a myriad of techniques.

Common Errors Educators Should Avoid

- Being impatient, answering your own questions
- Faking comprehension
- Ignoring some of the group, failing to draw out individuals
- Dominating the discussions
- Acting condescending toward the audience
- Parrot-phrasing or paraphrasing incorrectly
- Rephrasing audience contributions to suit your objectives
- Digressing too far and for too long from the topic
- Losing track of time
- Being uncomfortable with silence, jumping in to fill the silence
- Ignoring nonverbal audience clues
- Being too judgmental, hostile, or adamant
- Losing eye contact with the group or focusing on "safe members of the audience"
- Talking to your presentation material
- Setting up win/lose situations, taking sides
- Shifting the pace or subject suddenly or without warning
- Losing steam, slowing down before it's over

PUTTING THE PIECES TOGETHER

My old model for planning an education program was based on: (1) assembling "all the facts *they* need," and (2) preparing the slides or overheads. In retrospect, this approach seems pretty pathetic and naive. Designing even an hour-long session could involve a number of techniques and approaches. The most basic steps for a workshop are listed in "EH&S Advisor Checklist." What I concentrate on is staging the flow of activities to keep the participants engaged and thinking during the entire period. Maintaining this flow may be important in an hour session , but it is absolutely critical in a half- or full-day workshop. Long a standard tool with professional educators, a lesson plan can be a valuable tool to provide a road map of what should happen. Competitive Environment's

workshops on emerging issues, strategic planning, and scenario development all have very detailed lesson plans.[2] The system I use has been adopted by Organization Resources Counselors (ORC)[3] as its standard template for workshops.

As detailed as these plans are, they are only a guideline for individual segments. Just like a road map, you can see where you plan to go and your anticipated schedule, but once you start traveling down this path with a group of well-educated individuals who invariably know as much, if not more, than you do on some subjects, you'll need to be flexible. Managing the group process takes active listening and questioning skills, as well as being able to avoid the most common facilitation problems (see sidebar "Common Errors Educators Should Avoid").

THE JACK WEBB SYNDROME

Typical EH&S professional-to-business management interactions are almost exclusively report-based interfaces. "Just the facts," as Jack Webb would say on *Dragnet*, might be the guiding principle. If one examines the four principles of adult education in comparison to this traditional management-EH&S interface, it becomes painfully obvious why "management just does not get it." We have not made a compelling case for them to learn it.

How can anyone expect their budget to survive when management is oblivious to emerging issues, opportunities, and competitive dynamics—knowledge we almost take for granted. This is unfortunate. We get stuck in this traditional role of reporting, when a much greater proportion of our time should be spent educating management on emerging dynamics.

These basic principles of adult education can apply to any session where your objective is to convey new knowledge. Recognize that the techniques listed in "EH&S Advisor Checklist" can be applied to many management interactions. My favorites are role-play, case studies, and simulation. But these are nontraditional approaches and most EH&S staff members do not know how to go about setting these up in the context of executive management interaction. If there is reader interest, a future *EH&S Advisor* will take a closer look at these techniques.

REFERENCES

1. Dr. Robert Pojasek teaches a commercial course known as "The Environmental MBA School." A brochure for this course can be found online at: *http://www.Pojasek-Associates.com/Events/events.html*; or via phone at: (781) 641-2422.
2. See *http://www.EHSworkshops.org*.
3. ORC, see *http://www.orcinc.com*.

PLEASE ASK, PLEASE TELL

Is there an EH&S topic you would like to address in *EH&S Advisor*? Do you have information you wish to share with your colleagues, and you are interested in possibly coauthoring a column on the subject? *EM* is very interested in your ideas. Please contact Richard MacLean at phone: (480) 922-1620, or e-mail: *maclean@competitive-e.com*.

EH&S ADVISOR CHECKLIST

Designing Effective Training Programs

The basic steps:

1. Analysis
   - Interviews
   - Surveys
   - Task analysis
   - Focus groups

2. Objectives
   - Behavioral outcomes (e.g., what participants should do or say as a result of the training)
   - Realistic and specific
   - Action-oriented

3. Program design
   - Purpose
   - Type of training
   - Identify key resources
   - Target participants
   - Prepare and provide materials
   - Review design details, check physical arrangements

4. Method selection
   - Determine criteria for selection

Possible options:

- Home planning
- Case studies
- Competitive activities
- Evening assignments
- Experiential learning
- Games
- Guest speaker
- Individual exercise
- Large group discussion
- Lecturette
- Panel discussions
- Paper and pencil exercises
- Participant presentations
- Pre-work
- Reading
- Role-play
- Small group discussion
- Videotape presentation simulation

5. Supporting material development should be:
   - Useful in class and handy after class
   - Consistent in format and tone
   - User friendly
   - Targeted to user needs

6. Evaluation and improvement
   - Determine if objectives are met
   - Measure gains
   - Determine future needs
   - Do it immediately and provide incentives/encouragement

About the Author

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