


# Getting Operators into the Classroom

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Running a water treatment facility is no simple thing. Doing the job right requires years of experience and many hours of education. Training sessions for just about every aspect of operating a treatment plant are held throughout the year in each of the states to accommodate operators' continuing education requirements. Whether a class is about inflow and infiltration or calculating chemical feeds, having an engaging instructor with creative ideas contributes greatly to making the experience worthwhile for attendees. It also determines whether people willingly go to training or have to be dragged there kicking and screaming.

**How can we fill those seats?**

While continuing education is mandatory for operators to remain certified, trainers know that they fill seats better when there is some incentive to attend. In this article, several trainers and assistance providers offer ideas for bringing operators into sessions and then getting them to come back for more. Foremost among the suggestions, not surprisingly, is making sure there is food. We all have to eat—many of us love to eat—and a snack at break time or a full-blown buffet lunch gives the attendees an opportunity to relax and talk more with their colleagues.

Having food and holding the training in an unusual location works even better for attracting attendees. Byron Ross, state director of the U.S. Department of Agriculture's Rural Development office in Pennsylvania, tells of a training his organization held for engineers at a large sporting goods retailer, Cabela's.

"We had toyed around with the regular room-at-the-Holiday-Inn type of thing or a public library or even here at our office center in our training room," he says. "But, both of our engineers are big outdoors people—a lot of hunting and hiking and things like that. They thought it would be a good idea to have it at Cabela's, and, they found that Cabela's has a free room, a very nice room, that accommodates 50 to 60 engineers."

Tom Arnbrister, training coordinator for Wyoming's Association of Rural Water Systems (WARWS), says that the food lure is definitely the way they get folks to their class sessions. WARWS always makes sure there is plenty to eat. "Offer them a free lunch, and they will come."



Providing food is one way to entice people to training sessions.

WARWS also goes the extra mile in promoting classes prior to their delivery date.

Arnbrister says they try to embellish upon the details of the training they offer and describe how it will directly benefit operators in their daily work.

"Another enticement we use is hands-on training," he says.

"Operators love to come to training where they are actually involved. It has better results, I believe, than six or eight hours of straight lecturing.

Operators are a hands-on type of people and would rather be problem solving than reading from a book or having somebody read a *PowerPoint* to them."

Because operators are busy professionals, it's important that training courses have clear objectives. "Be sure you know who your audience is and what they need to learn," suggests John Hoornbeek, director of training for the National Environmental Services Center. "What is it you want them to take away from the session? What two or three things do you want attendees to remember or be able to do six months or a year down the road? The answers to these questions will help focus the training and make it more effective."

### Laughing in Class is Allowed

Humor plays a big role in keeping students engaged, whether they are 16-year-old kids or middle-aged adults. Instructors should be natural performers to be comfortable and to effectively interact with their students. Ice-breaking jokes, open and active discussions, and insightful games help loosen up a class and get everyone thinking and ready to learn the topic of the day.

# Motivating the Adult Learner

*The following suggestions enhance motivation by developing a student's positive attitude.*

**Promote self-determination**—Because adults are more independent than traditional learners, providing the opportunity for them to direct their own learning helps foster a positive attitude. Adult students should be involved in planning and goal setting as much as possible.

**Make learning successful**—Adult educators can ensure successful learning by providing quality instruction, concrete evidence that effort makes a difference, and feedback on learning progress.

**Make the learning experience interesting**—Research shows that first impressions make a lasting impact. It's imperative that initial training sessions be made as interesting and unthreatening as possible so the students will be enthusiastic about attending future sessions.

**State expectations**—A positive statement about the quantity and quality of effort required to accomplish a task gives adult students a feeling of control. Emphasizing learner responsibility increases perseverance and reduces feelings of helplessness.

**Develop clear learning goals**—Design written materials with clearly stated goals and objectives and provide written or projected outlines for individual sessions. Explicit directions help to avoid unnecessary confusion.

**State evaluation criteria**—Adult learners tend to be self-directed, so detailing evaluation criteria gives them the scope of what they need to learn and do for evaluating their own progress.

**Source:** Adapted from the National Environmental Services Center's *Basics of Environmental Systems Management* curriculum.

Penny McCoy, training coordinator with the Pennsylvania Rural Water Association (PRWA), knows well how important it is for operators to enjoy the courses her organization offers. With upwards of 100 training providers across the state, there is plenty of competition for training funds.

"To keep them coming back to us, we have to make sure that the training is useful to their systems, that they can use it in their day-to-day jobs, and that it's not only interesting and useful, but it's also fun," she says.

Having some kind of an entertainment strategy helps to ensure that operators want to return for PRWA's training. And, establishing a casual, pleasant atmosphere sets the stage for any comedians in the class to reveal themselves.

## Adults, Traditional Students Differ

Adults actually learn differently from the younger, traditional student. They also have different needs and plenty more distractions. Adults want course content to be presented "with a minimum of theoretical background and a maximum of interpretation through everyday workplace examples" according to the National Education Association's *Advocate* newsletter (April 2005).

The Rochester Institute of Technology's guide "How to Teach Adult Students," suggests several strategies for those who teach adults that include:

- giving an overview of what will be covered and class objectives,
- trusting students to be serious about what they are learning,
- being fair and flexible with them,
- being open and accessible to them,
- using real-life, applicable examples as opposed to being theoretical, and
- mixing activities to keep up interest (older adults can tire more readily).

"You're dealing with adult students, and a lot of these guys have been out of school for a long time," McCoy says. "They're all kind of 'we have to do this,' and some of them aren't real happy



# Ten Skills Needed to Teach Adults

Once a good strategy has drawn people into a training session, working with these adults requires different techniques from working with traditional students. Trainers need to be aware of basic principles of adult learning, because adults bring an entirely different attitude to a class. To be effective, instructors must:

1. Understand motivation and participation levels of adults in a training program
2. Understand and provide for the needs of adult learners
3. Be competent in the theory and practice of adult learning
4. Be familiar with the community and interests of the students
5. Use a variety of methods and techniques of instruction
6. Possess adequate communication and listening skills
7. Use appropriate educational materials
8. Be open-minded about allowing adult students to pursue special interests
9. Participate in continuing education programs themselves
10. Be able to evaluate adult education programs

Source: Adapted from the National Environmental Services Center's *Basics of Environmental Systems Management* curriculum.

about it, so you want to make it as pleasant an experience for them as you can."

This means that if an instructor drones on about regulations without giving some real world basis for the rules, the students will be daydreaming within a matter of minutes. Hands-on exercises and a variety of activities keep a class awake and interested.

"Trainers have to know their material very well," says Ross. "They need to incorporate humor in a presentation and have a lot of participation in order to keep it interesting. I've attended training, particularly dealing with federal regulations and things like that, that just become extremely boring. Group exercises are under-utilized."

McCoy tells of a pumps and motors class she taught where she used group discussion to get things going. After having everyone introduce themselves, she divided the class up into small groups to talk about the five biggest challenges they had as operators.

"When they got done with the five biggest challenges," she says, "I wanted to know what their three most rewarding things were. That sparked some really interesting conversation. It kind of loosened everybody up, and they got to talking to each other."

At PRWA trainings, McCoy says that they always try to present some activity where the class breaks into groups to work on a project or just talk to each other about problems that another system may have had before. She tries to leave a little time during the day so the students can talk about whatever they need to talk about, whether it's a problem with a treatment process or their governing body or just with how many hours they have to work.

## Training is Serious Business

Aside from the food and the fun of making continuing education palatable, as McCoy notes, it's important to remember that operating a system is serious business. Training, after all, is mandated to help operators do their jobs.

"The operators are dealing with the public's health and welfare, but, it's not a high paying job," she says, "and, it's not a highly respected job, although it should be."



...in the classroom.



...in the field.



...networking.

Whether it's in the classroom, in the field, or at a conference, face-to-face interaction is vital to the learning process.

“You don’t want to just have them in a class shooting facts at them. You want them to have the opportunity to network with other systems, to get to know the other operators there, and to establish some friendships while they’re at training, not only with the other operators but also with the trainers.

You try to keep it as serious and on target as you need it to be, but you don’t want to try to be like a school teacher.”

“Good training programs tend to generate interest,” Hoornbeek

says. “If you provide practical information in an easy-to-understand format and make the experience enjoyable, people will appreciate it and tell others. As the old saying goes, there’s no better publicity than good word of mouth.”

Successful trainers take time to learn what their students need and give them additional information to keep one step ahead of ever-changing technologies and new regulations. Arnbrister says that most of the operators in his state are very “regulatory conscious,” so they enhance their training sessions by including regulatory updates about forthcoming regulations, such as the Ground Water Rule.

Those little extras—plus good, solid information in the classroom—go a long way to fill seats and to keep people coming back for more.

### For More Information

The training unit of the National Environmental Services Center has additional tips for teaching adults at [www.nesc.wvu.edu/netcsc/netcsc\\_tips.htm](http://www.nesc.wvu.edu/netcsc/netcsc_tips.htm). NESC also lists a number of training and education links at [www.nesc.wvu.edu/netcsc/netcsc\\_training&edlinks.htm](http://www.nesc.wvu.edu/netcsc/netcsc_training&edlinks.htm)

The Rochester Institute of Technology has an online guide titled “Effective Teaching Techniques for Distance Learning” that provides an overview of different teaching methods and ways of learning. Go to [www.rit.edu/~609www/ch/faculty/effective.htm](http://www.rit.edu/~609www/ch/faculty/effective.htm) to review this guide.

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