Why Training Needs Change

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In thinking about any training including hearing loss prevention, three main goals come to mind:

• Imparting knowledge *that participants will remember*
• Building skills *that participants will feel competent to use*
• Instilling motivation in participants *so that they will champion safe work practices*

We know that training is not a one-shot endeavor. Training approaches for any subject need to constantly evolve because our work environments are not static. For example, as occupational safety and health educators, we expect to find some yearly changes in our audience, changes in the work environment, and changes in recommendations or regulations. Additionally, an evaluation of your training for effectiveness may indicate deficiencies suggesting a need to change your approach. Finally, we live in a time of constantly changing technology, and you may wish to try new media or alternate methods of delivering training to workers.

Arguably, one of the most critical of the elements noted above depends on the ability of the trainer to understand the audience and respond to changes in that audience over time.

A stable, homogeneous workforce will move through predictable "stages" reflecting varying degrees of receptivity to health and safety messages. In contrast, a diverse workforce with high turnover challenges the trainer to reassess the audience and tailor his or her messages each time training is provided. "Stages of change" models can be useful tools that aid the trainer in preparing and delivering health and safety training.

Stage models differ from many commonly known health behavior models (e.g. Health Belief or Health Promotion models, Theory of Reasoned Action) in significant ways. While the health behavior models stress predictability of behavior based on interactions of attitudes, beliefs, and situational barriers, stage models view the adoption of new behaviors as a series of events linked to an individual's spiraling progress toward understanding and personally choosing to adopt the new behavior. A strength of "stages of change" models is that they permit the detection of movement toward a desired behavior change well before people actually demonstrate the desired change. A wealth of research now suggests that people at different "stages" in the change process behave in distinctly measurable ways, and thus, the training interventions needed differ at each stage.

There are several "stages of change" theories, but one that has received extensive testing and evaluation in a number of settings is DiClemente & Prochaska's model (for ref. See: Prochaska JO, DiClemente CC, & Norcross JC (1992). In Search of How People Change: Applications to Addictive Behaviors, *American Psychologist*, 47:1102-1114). This theory proposes five stages:

• **Precontemplative**–People in this stage do not recognize the issue or feel any need to change their behavior.
• **Contemplative**–People in this stage are aware of the issue and are seriously thinking about changing their behavior.
• **Preparation**–These individuals are making a personal commitment to change and taking the first steps to prepare for behavior change.
• **Action**–People in this stage have successfully adopted the desired behavior change according to their plan...and are in the first six months of action.
• **Maintenance**–These individuals continue the successful behavior change from six months through an indefinite time period.

The theory notes that this process is not perfectly linear; most individuals relapse and recycle through one or more stages as they attempt a permanent behavior change. Perhaps the aspect of the theory most helpful to educators and trainers relates to the factors and processes that help individuals progress through each stage. For example, trainers and

educators can help people move from *precontemplation* to *contemplation* by raising consciousness about the issue at hand. This can be accomplished by providing information about an issue and by raising the audiences' perception of their personal risk. Often this is done by describing the "new" health threat in terms of comparisons with activities widely regarded by society as being risky. This is not always easily accomplished. Risk perception literature has taught us that to be seen as credible, only risks with similar profiles should be compared in health messages. This means that to raise consciousness about occupational hearing loss it should be compared to a well-known risk that is similar in terms of factors such as dread of getting the illness, degree of personal control possible in avoiding the illness or curing it if acquired, catastrophic potential from the illness, and novelty of hearing loss. One of the great frustrations among hearing conservationists for decades has been the inability to create a sense of dread, urgency, and concern about occupational hearing loss. Despite this failure, one may encourage *precontemplators* to move toward the *contemplation* stage by getting their attention, providing factual information about the issue, and creating an environment that helps people choose healthy behaviors.

What about the *contemplators*? These individuals are aware of the problem, so simply providing more "facts" is unlikely to spur them to action. They are thinking about changing their behavior, but are unsure how to go about it. For people in the contemplation stage, research suggests that an individual must actively choose from a repertoire of possible behaviors relevant to the issue and must develop and commit to a course of action. In essence, training must help people in this stage choose options that move them from contemplation to preparation. One way to do this is to assess the individual's decision making perspective and attempt to help them consider the costs, benefits, and probabilities of future handicaps associated with preventing or not preventing hearing loss.

A particular difficulty facing hearing health educators is the time/line associated with noise-induced hearing loss. Quite simply, many people initially consider the burden of protecting their hearing disproportionate to any future consequences of poor hearing during their retirement years. The challenge at this stage is to convince workers to look at the ramifications of noise-induced hearing loss from a new perspective.

After adequate contemplation, people ideally move into a stage of preparing for behavior change. Individuals in the *preparation* stage increasingly recognize and appreciate the "pro" arguments favoring the contemplated behavior change. They begin taking steps that will facilitate their ability to adopt new behavior. For example, they may purchase hearing protectors, participate in a sound survey of their workplace, or schedule an appointment for a hearing test.

Preparers are moved to *action* when they are able to set reasonable goals for themselves. Trainers and educators can assist people at this stage by helping workers assess goals and plans for feasibility and by directing efforts at identifying and overcoming any barriers that hinder adoption of healthy behaviors. Workers who are encouraged to make public pledges, particularly to peers, to engage in the new behaviors are often most successful at moving into action. People in the action stage "intend" to maintain their new healthy behaviors and benefit from encouragement of each small step taken along the way.

If the environment remains supportive and barriers continue to be addressed as they crop up, the new behaviors can be *maintained* indefinitely. Individuals in the maintenance stage are strong champions of healthy behavior and publicly identify themselves as proponents of the "new" safe work practices. Maintainers will likely face occasional "relapse," which is often precipitated by a breakdown in the environmental support structure. Trainers and educators can prepare their audiences for this possibility and assure them that these instances are best managed from a constructive, problem solving perspective. For example, a supervisor's forgetful delay in refilling the hearing protector supply box could result in workers being unprotected in noise during an entire work shift. Similarly, it is not uncommon to find that workers may delay reinstalling a noise control device on a piece of machinery following maintenance. In both cases, focusing on a plan that will minimize these

conditions in the future will be a more constructive and rewarding approach than simply confronting the "relapsing" individuals in an adversarial manner. Educating people that "relapse" usually happens when people are frustrated by barriers or in a hurry may help. Stable behavior change takes practice and patience.

Finally, educators and trainers in the health and safety arena often need to be reminded that culture also shapes worksite behavior, values, and overall receptivity to new behaviors. Appreciating the diversity within a work group is just as important as recognizing diversity between work groups. Carpenters, miners, assembly line workers, and farmers all experience noise on the job, but your hearing conservation messages should be tailored to the characteristics associated with each work sector and your assessment of the stage of readiness each audience exhibits toward adopting change. Evaluate your training program on an ongoing basis for relevance to your audience and effectiveness at producing the desired effects. Potential questions to ask include, "Do you have evidence that:"

• Your audience pays attention and learns from the training?
• The audience can recall and apply the information appropriately by displaying needed skills (such as how to select and fit hearing protection)?
• The audience responds to your training by progressing toward adopting safe work behaviors (retrofit engineering controls, increase wearing time of hearing protectors, etc.)?
• Your training actively addresses the barriers and issues perceived by your audience? This requires that you *ask!*

This is an exciting time for educators and trainers. No longer is yearly hearing conservation training limited to the same boring video year after year. Technological advancements allow the use of camcorders, digital cameras, and computer graphics to personalize training to each work environment or even to each team of workers. There are many jazzy new videos and CD-ROM products, interactive "real-life" problem solving scenarios, and guidance available on the Web for making "home-grown" training materials involving your workforce. Noted below are just a few of the many Web sites offering health and safety education and training and/or hearing loss prevention information.

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