

## **Safety Training That “ROCKS!”**

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### **Introduction**

PowerPoint is a staple of all training. However, many of us have suffered through “death by PowerPoint.” All you need to know presented in one hour and 225 PowerPoint slides. And to make it worse, sections of a book, the OSHA standards or three paragraphs containing approximately 300 words in Helvetica 8-point font were copied and pasted onto the slide. And worst yet, the presenter proceeded to read from the slide—word by word. No wonder PowerPoint and this type of training get such a bad wrap.

In today’s session, we will look at a number of different methods and training tools to utilize that will make your next training session ROCK.

### **A Little Bit about Adult Learning**

Part of being an effective instructor involves understanding how adults learn best. Compared to children and teens, adults have special needs and requirements as learners. Despite the apparent truth, adult learning is a relatively new area of study. Malcolm Knowles pioneered the field of adult learning. He identified the following characteristics of adult learners:

- Adults are *autonomous* and *self-directed*. They need to be free to direct themselves. Their teachers must actively involve adult participants in the learning process and serve as facilitators for them. Specifically, they must get participants' perspectives about what topics to cover and let them work on projects that reflect their interests. They should allow the participants to assume responsibility for presentations and group leadership. They have to be sure to act as facilitators, guiding participants to their own knowledge rather than supplying them with facts. Finally, they must show participants how the class will help them reach their goals (e.g., via a personal goals sheet).
- Adults have accumulated a foundation of *life experiences* and *knowledge* that may include work-related activities, family responsibilities, and previous education. They need to connect learning to this knowledge/experience base. To help them do so, they should draw out participants' experience and knowledge, which is relevant to the topic. They must relate theories and concepts to the participants and recognize the value of experience in learning.
- Adults are *goal-oriented*. Upon enrolling in a course, they usually know what goal they want to

- attain. They, therefore, appreciate an educational program that is organized and has clearly defined elements. Instructors must show participants how this class will help them attain their goals. This classification of goals and course objectives must be done early in the course.
- Adults are *relevancy-oriented*. They must see a reason for learning something. Learning has to be applicable to their work or other responsibilities to be of value to them. Therefore, instructors must identify objectives for adult participants before the course begins. This means, also, that theories and concepts must be related to a setting familiar to participants. Letting participants choose projects that reflect their own interests can fulfill this need.
  - Adults are *practical*, focusing on the aspects of a lesson most useful to them in their work. They may not be interested in knowledge for its own sake. Instructors must tell participants explicitly how the lesson will be useful to them on the job.
  - As do all learners, adults need to be shown *respect*. Instructors must acknowledge the wealth of experiences that adult participants bring to the classroom. These adults should be treated as equals in experience and knowledge and allowed to voice their opinions freely in class.

Another aspect of adult learning is motivation. At least six factors serve as sources of motivation for adult learning:

- **Social relationships:** to make new friends, to meet a need for associations and friendships.
- **External expectations:** to comply with instructions from someone else; to fulfill the expectations or recommendations of someone with formal authority.
- **Social welfare:** to improve ability to serve mankind, prepare for service to the community, and improve ability to participate in community work.
- **Personal advancement:** to achieve higher status in a job, secure professional advancement, and stay abreast of competitors.
- **Escape/Stimulation:** to relieve boredom, provide a break in the routine of home or work, and provide a contrast to other exacting details of life.
- **Cognitive interest:** to learn for the sake of learning, seek knowledge for its own sake, and to satisfy an inquiring mind.

## What We Remember

Our training is not only for the purpose of presenting information, but generating action and eliciting behaviors acceptable in the workplace. Studies have shown that the instructional methodologies used have a direct bearing on how well the information is received and more over what impact it has.

When receiving just a verbal message, learners only retain approximately 10% of what they hear. Visual aids and allowing participants to see what is being discussed raises the retention to approximately 30%. Combine those two and retention goes up to 50%. Getting the participants involved and having them doing something will raise the rate to 70%. Finally, up to 90% retention can be achieved by a combination of sight, hearing and doing. Our bottom line, the more senses involved, the greater the chance for understanding, retention and subsequent action.

## Formula for an Effective Presentation

There are many presentation theories and styles. Here is a simple yet powerful process to ensure maximum effectiveness. It involves the 5 “P”’s of presentation: Preparation, Pinpoint, Personalize, Picturize and Prescribe.

The key to any of the processes is Preparation. Start out thinking about what you are going to present. At the end of the session, whether it is 5 minutes or an hour, what do you want the audience to walk away knowing or doing? Follow the old axiom; begin with the end in mind. Write down a few notes. Brainstorm key words. Start to create the outline of your message. Background material may be obtained by reading related material. Utilize today’s web too and Google the subject matter. You are almost guaranteed more information than you can use. Listen to others. Get a sense of what they want to learn and what they already know. Once you have gathered your data, organize it into an outline and start to develop the flow of the presentation. Now you are ready to start the final element of the preparation step, practice, practice, and practice. Only through this practice will you determine if you have too much material, too little material, and the right material and start to get a sense of the overall effectiveness of the presentation.

Pinpoint on one major topic or subject matter. You are not going to be able to cover the confined space entry standard in one 5-minute toolbox talk. However, over time you can cover the standard by pinpointing on one element of the standard and covering it thoroughly in the time allotted. Rather than a shotgun approach, shoot with a rifle to zero in on your target message.

Participants will want to know and will ask the question, what’s in it for me? The best way to ensure that they get it is to personalize the message. Establish a common ground with the participants. Meet them on their turf by bringing the message close to home. Try to present from their perspective rather than lecture. Your earlier preparation and information gained through listening will tell you what is important to them and what you can do to make it personal. Participants will react best to what they find meaningful and relate to in a personal manner.

It has been said that a picture is worth a thousand words. In training or presenting, this is very true. Rather than copying the standard, pasting it into PowerPoint and then reading from the slide, take a digital picture of the subject matter, print it, make a poster from it, put it on a decal, make a crossword puzzle out of the picture or if you have to, import it into PowerPoint and then discuss using the visual aid as your guide. These pictures are best from your own workplace and can assist with the previous concept of making it personal. Remembering our earlier lesson that participants will retain more if they both hear and see, pictures or visual aids can go along way to improving understanding and retention. For us in the SHE world, this is most probably the easiest to comprehend as we are surrounded by opportunities in our workplaces to gather pictures and visual aids (PPE, guards, respirators, clear aisles, blocked fire extinguishers, etc.). Your ability to picture and utilize as many senses as possible to enhance the learning opportunity.

Finally, leave them with a prescription for action. How many times have we been in meetings or attending training and when walking out wondering why, what are we supposed to do, what just went on in there, what do they expect, etc. Preparation and beginning with the end in mind should provide use with the answers. Ask for and define special action or activity. Give and ask for specific behavioral changes. Give specific assignments with appropriate milestones and

deadlines. Seek understanding of the assignment by asking open-ended questions. Set clear expectations and then follow up to see if they are met.

### Trauma Time

Select anywhere from three to five of your most recent injuries or, if your process is excellent, near misses that could have resulted in severe consequences. Put a small dot or sticker on the backs of randomly selected chairs. Participants sitting in these chairs with the dots will have to live with the consequences for the session or at least until lunch, if the session is scheduled for longer than one hour. They will then discuss with all others how they felt, what limitations were experienced, and how others treated them.

Here are some examples of how to “disable” the selected participants. Secure a full-length knee brace. Participants must wear the brace for the allotted time. Get some crutches. The participant will have to use them for the prescribed period. With a pair of safety glasses, paint one lens black to prevent sight and then cover the other with a baby powder and hair spray mixture creating a blurred vision. A selected participant gets to sit and function from a wheelchair. Place the wheelchair at a position at or near a table leg. Obtain a surgical sock. Place it over the dominant hand of the participant. Secure it with medical tape. They will have to use their other hand for all tasks during the period allotted.

There are many lessons to be learned by spending some time in another’s shoes.

### Show Me the Money

Find your nearest novelty store or from the Internet, obtain a large stack of play money. Ideally the amount of money secured should fill a copy paper box. Place the money in the middle of the table or in front of the participants. Ask them to guess as to how much money is in the stack. When done, present the exact amount spent for injuries and illness over the period you choose. Ask for comments from the participants as to what they could have done with this amount of money. Would it have bought that new tool, the additional person or staff, provided for that much needed project, etc.

Another twist on this exercise is to place the pile on a table at a meeting and ask participants to guess the dollar value represented by the pile. Their guess is placed on a small piece of paper and placed in a bowl on the table. The person closest to the exact amount is given a small prize.

### Zero Injuries

Place a Zero candy bar at each seat before or just prior to a break. Use the candy bar to open conversation as to the zero injury concepts and is it actually achievable.

### The Lesson of the Penny

Ask participants if there is anyone in the group that has not seen, heard of or had a penny (one cent) in their possession. The answer is fairly obvious; the penny has been around for quite a while and is a common fixture in US currency. (NOTE: for those not in the U.S. choose a similar coin within your currency; this lesson will work just as well.)

Now ask the participants, without looking at a penny (or other coin), to draw the HEAD side of the penny (or other coin chosen). You may provide a sheet of paper with a blank circle

already drawn or have the participants draw their own with no assistance. (A blank circle is provided as a PowerPoint slide). Give them about one to two minutes to complete the task.

When you call TIME, ask a few questions:

- ✓ Whose face is shown on the penny? (Lincoln) (Or other coin – if not a face what graphical representation is shown)
- ✓ What profile is shown – left or right? (Right)
- ✓ What words appear above his head at the top of the coin? (In God We Trust)
- ✓ What word appears at his back? (Liberty)
- ✓ What appears to the front of his right shoulder? (Date & Mint Mark)

Finally ask the participants to look in their pockets, purses, etc., and see if they have a penny. Ask them to look at the date. Who has the newest; what is the date? Who has the oldest; what is the date?

**Now for the hook:** The penny has been around for at least (XXXX) years (date range of penny's in the class)—and a lot longer. It has varied in its composition and importance over these many years. We have had and handled them for many hundreds and maybe thousands of times using them to purchase items as a child or adult, receiving them as change, putting them in a jar because of their lack of individual value. However, if we have enough of them or save enough of them their purchasing power increases and we can buy candy, books, TV's, cars, homes, pay for education, etc. **YET BECAUSE OF THIS FAMILIARITY AND MAYBE INSIGNIFICANCE, WE “LOSE SIGHT” OF THEM AND THEIR IMPORTANCE TO THE POINT THAT WE FORGET WHAT THEY LOOK LIKE AND THEIR DETAIL.**

What's this have to do with safety: EVERYTHING! We sometime **LOSE SIGHT** of the little things we do in our day-to-day jobs. And maybe, if we don't pay enough attention to them, these little things can and will become **BIG THINGS**. A small drop of oil on the floor, not wearing your PPE for just a moment, lifting the part rather than waiting for 30 seconds until the crane is available, not putting the cover back on the chemical container, etc. Little hazards unattended have the potential to cause **BIG** problems. The old adage “You can't see the forest for the trees” is certainly appropriate in this circumstance.

**What's The Point:** It's little things that count. Now ask participants to go back to their workplaces with the “Lesson of the Penny” and look for the “little,” day-to-day hazards to which they have not paid much attention—those things that have been accepted as part of doing business. Challenge them to find and fix at least one before the next meeting or training session.

## THE PILL GAME

Adapted from a study of injuries and illnesses by the Insurance Company of North America (INA) In a study of 175,000 injuries/illnesses occurring in approximately 3,000 workplaces, which worked about 3,000,000,000 hours during the period of the study, the following ratios were discovered. For every serious injury (fatality, amputation, etc.), there were 10 other minor cases, 30 cases in which property was damaged and 600 incidents where there was no property damage or injury. In the 600 where no injury occurred, the events leading up to the incidents had all the

potential for injury, illness or property damage. However, due to luck or chance, the classic “near miss” prevailed. This study confirmed the theories of early safety pioneer Heinrich, whose theory of 1 serious injury, 10 minor injuries or property damage and 300 “near miss” events led to the safety triangle so prominently used throughout the professional safety literature.

This study gives credence to a definition of “accident”, that being *an unplanned event, which may or may not result in personal injury or property damage*. Further the end result of a chain of events commonly known, as an accident is a matter of luck and chance. Furthermore all of the events look the same. (e.g., a brick falls from a scaffold some six stories above the ground. There may be three distinct outcomes: (1) the brick lands in a pile of sand doing no damage to the brick nor causing injury; (2) the brick falls and strikes the sidewalk causing the brick to break; or (3) the brick hits an employee on the head causing a fracture to the cervical vertebrae.) All three events (falling bricks) looked the same. The consequences however are a matter of luck or chance.

Therefore, if one only looks at the incident causing injury, there are many missed opportunities to correct and prevent the probability for injury. Many safety programs pay great deal of attention to the serious injury and relatively little to the property damage or the “near miss”, thereby overlooking the chain of events and missing opportunities to dramatically reduce the hazards and potential for injury.

#### The Set Up:

- You are a manager moving into a new area with one of your charges being to reduce the accident rate
- You are a safety professional looking to convince management that there is a serious problem in the department requiring prompt action

#### Supplies Required:

- Three jars – one large and two smaller
- One prescription pill bottle – small
- 641 sugar or gelatin capsules – all identical
- One overhead/slide showing the accident triangle

#### The Game

The instructor begins by asking the participants to define “accident.” The facilitated discussion should result in the definition from above : *“an unplanned event that may or may not result in personal injury or property damage.”*

The instructor then announces that the class will now discover some interesting facts about this definition through participation in an exercise. The jars and bottle of pills are produced.

The large jar with 600 pills is held up as the instructor explains that in this bottle are 600 sugar or gelatin capsules which if consumed will have little or no effect on the person consuming the pill.

The jar with 30 pills is held up as the instructor explains that these have been “slightly” altered with the addition of a mild laxative. If a participant consumes this pill, there will be minor reactions and very mild discomfort, but overall no serious consequences.

The jar containing 10 pills is now displayed. The instructor explains that these pills also have been altered. In addition to the laxative, a mild virus has been added that will produce flu-like symptoms that will last 3 to 5 days. This reaction in addition to the consequences of the laxative will produce temporary weight loss and moderate discomfort. The participants should be symptom free within 5 to 7 days with no long term or lasting side effects.

The prescription pill bottle is now held up. The instructor explains that in this bottle is one pill, which has been “significantly” altered. A neurotoxin has been added that if consumed will result in excruciating pain and death within a matter of minutes. Initial symptoms include a cold clammy feeling, sweating, nausea and light-headedness. In the event of onset of any one of these symptoms, the participant should advise the instructor immediately so that the proper antidote may be administered. The antidote must be administered within the first few minutes of onset of symptoms to be effective.

In dramatic fashion, the instructor now pours the 30 pills into the jar containing the 600. Next the 10 pills are added to the mixture. Finally, with flair, the one pill is added. The top is placed on the jar and the jar handed to a participant to shake vigorously. After a few moments, the instructor retrieves the jar and removes the lid.

The instructor now passes the jar among the participants giving them an opportunity to reach into the jar and take out a pill. If any participant(s) reach in and actually take a pill from the jar, they are instructed to consume the pill. If one or more of the participants consume the pill, the instructor directs that they be observed extremely carefully for the next several minutes to determine if they will exhibit symptoms.

### Discussion

If no one has reached in and taken a pill, ask why. The discussion should reveal that they did not like the odds (640 to 1). Another conclusion is that they all look the same. Based on the concept of the triangle, all 641 of the incidents look the same and the results of the incidents are based on luck and chance. The odds were not good enough for the participants therefore they should not accept the “odds” that someone may or may not get hurt in their workplace. The “odds” may not always be in their favor. There may not be 640 opportunities/incidents before a serious injury. It could occur on the first event.

If a participant (or two) takes the pill, facilitate a discussion around inherent risk takers. Their perception of risk is significantly different from most. Our systems must take these risk takers into account to prevent injuries. They are willing to readily tempt fate because they may have done it before with no consequences, 640 to 1 odds are OK with them, etc.

## **Conclusions**

A series of events may occur that lead up to the classical “accident.” Through this exercise, we find that many, similar series of events are occurring in the workplace day-in-day-out, and because of luck or chance the consequences are not manifested. We miss significant opportunities to prevent accidents and injuries by only paying attention to the top of the triangle (serious

injury). Our management systems must understand this concept; encourage “near miss/incident” reporting in order to take advantage of the fortunate occasions to prevent future probability for injury.

## **The Bricklayers' Accident**

Dear Sir:

I am writing in response to your request for additional information. In block no. 3 of the accident reporting form, I put "poor planning" as the cause of my accident. You said in your letter that I should explain more fully, and I trust the following details will be sufficient.

I was a bricklayer by trade. On the day of the accident, I was working along on the roof of a new six-story building. When I completed my work, I discovered that I had about 500 pounds of brick left over. Rather than carry the bricks down by hand, I decided to lower them in a barrel by using a pulley, which fortunately was attached to the side of the building, at the sixth floor.

Securing the rope at ground level, I went up to the roof, swung the barrel out, and loaded the brick into it. Then I went back to the ground and untied the rope, holding it tightly to insure a slow decent of the 500 pounds of bricks. You will note in block no. 11 of the accident reporting form that I weigh 135 pounds.

Due to my surprise at being jerked off the ground so suddenly, I lost my presence of mind and forgot to let go of the rope. Needless to say, I proceeded at a rather rapid rate up the side of the building.

In the vicinity of the third floor, I met the barrel coming down. This explains the fractured skull and broken collarbone.

Slowed only slightly, I continued my rapid ascent, not stopping until the fingers of my right hand were two knuckles deep into the pulley.

Fortunately, by this time I had regained my presence of mind and was able to hold tightly to the rope in spite of my pain.

AT approximately the same time, however, the barrel of bricks hit the ground, and the bottom fell out of the barrel. Devoid of the weight of the bricks, the barrel now weighed approximately 50 pounds.

I refer you again to my weight in block No. 11. As you might imagine, I began a rapid decent down the side of the building. In the vicinity of the third floor, I met the barrel coming up. This accounts for the two fractured ankles, and the lacerations of my legs and lower body.

The encounter with the barrel slowed my enough to lessen my injuries when I fell into the pile of bricks and, fortunately, only three vertebrae were cracked.

I am sorry to report, however, that as I lay there on the bricks - in pain, unable to stand, and



watching the empty barrel six stories above me - I again lost my presence of mind - I LET GO OF THE ROPE....."

## **You Might Be in Ehs If:**

1. You're the designated jailee for all EHS problems.
2. You're the first person the plant manger calls when anything goes wrong.
3. You're on call 24 hours a day and required to live within five minutes of the plant.
4. You know that IAQ has nothing to do with an individual's intelligence.
5. You have to be able to climb higher and crawl lower than any other executive in the plant.
6. You're the only member of management that doesn't take vacation during the annual shutdown.
7. You spend more time out of your office than in it.
8. The first two numbers on your telephone speed dial are OSHA & EPA.
9. There aren't enough days in the year to take all the compensatory time off that your boss has been promising.
10. Someone mentions TWA and you don't think of the airline.
11. You actually have an emergency preparedness plan.
12. You actually practice your emergency evacuation plan.
13. You instinctively reach for your beeper whenever one goes off.
14. You're on a first name basis with the OSHA Area Director.
15. You actually know the difference between fume and vapor.
16. You don't think about post-it notes when someone mentions the name 3M.
17. You go to the ball game and reach for the safety belt and seat adjustment when you sit down.

## What Will You Do?

After discussion of some basic safety, injury/illness reduction principles, present this list of activities. Ask the participants to choose any three items from the list that when implemented will create a change in safety performance. Encourage them to place the items selected into their performance plan or annual goals.

### STRONG, VISIBLE SUPPORT

- Safety as an agenda item at each meeting
- Safety opportunities when walking around or talking with employees
- Model by wearing the required equipment
- Conduct a review of all injuries within my organization

### POLICY STATEMENT

- Statement of support for safety within my organization

### INTEGRATION INTO THE BUSINESS PLAN

- Include safety as a specific element of the business plan
- Hazard analysis of each process leading to EHS certification of the process
- Include safety performance monthly in senior staff meeting

### LINE ORGANIZATION & RESPONSIBILITY

- Include specific safety activities within performance planning, goals and evaluations (PMP)
- Measure activities as well as injuries and illnesses

### AGGRESSIVE GOALS

- Beat Textron goals
- Strive for world class performance (all industries)

### VALID METRICS

- Define specific activities to improve performance
- Measure activities frequently
- Communicate metrics to all employees
- Use injuries and illnesses to validate activities

### MANAGEMENT AUDITS

- Conduct daily, weekly, monthly safety audit of the organization
- Champion and participate in quarterly compliance audits
- Champion and participate in third party audits

### ROOT CAUSE ANALYSIS

- Review all injuries and illnesses – ask questions - get to root cause
- Review all audit and inspection reports – ask questions - get to root cause
- Work toward mistake proofing corrective actions – correct so that it will not occur again

#### EXCELLENT COMMUNICATION

- ❑ Video and blitz to announce 2004 action plan
- ❑ Continue with safety as a lead agenda item at each meeting
- ❑ Once a day, talk with someone about safety (in a positive tone)
- ❑ Include safety in management briefings and town hall meetings
- ❑ Create a visible safety focus in the organization (modeling, signs, posters, etc.)
- ❑ Say thanks to those working safely (state what they are doing and express appreciation)

#### TRAINING

- ❑ Conduct training assessment within my organization
- ❑ Participate in or conduct safety training
- ❑ Ensure appropriate safety training given to all in organization

### **Summary**

These and many more ideas can be used to enhance your next training session.

Using the last “P” (Prescribe): Your assignment is to use one of these items or any other of your choice during your next training session. How does it compare to your previous training sessions? What was the reaction of your audience/participants? What will you do to make it even better?

You’ve now found the secret!!

**SAFETY TRAINING THAT ROCKS !!!!!!!**