

No Reading or Writing Required: Safety Training Activities for Everyone

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Introduction

Most experienced safety trainers know the importance of incorporating opportunities for interactive class involvement into their training classes. There are a wide variety of games and activities available. These games and activities can be a great addition to safety training classes if the activity is well planned and is directly related to the class content. While interactive activities are a great addition to training classes, most of these activities are based on the premise that the trainees can read and write English.

The challenge of providing safe workplaces for non-English speakers has been recognized by industry professionals and government organizations alike. According to the Occupational Safety and Health Administration, language barriers contribute to about 25% of all workplace fatalities. Groups such as OSHA have dedicated a great deal of time and money to providing education and materials for Spanish speakers since this is the fastest growing demographic in America. Additionally, statistics have shown that these non-English speakers have a greater number of workplace accidents.

The Bureau of Labor and Statistics estimates that there will be nearly 23.8 million Hispanic workers by 2012. The BLS also reports that many contractor and construction associations are reaching out to recruit and train these workers. The need for safety training material to be provided in Spanish has never been so great.

It should be remembered though that even if you have your safety training materials translated into Spanish and delivered in Spanish, some Hispanics coming into the United States may not be able to read or write very well in any language.

This leads to another group that is largely overlooked. These are illiterate American workers who are native English speakers. Illiteracy is a big problem in many areas of the United States. A five-year, \$14 million study conducted by the United States government interviewed over 26,000

adults. The study proved that more than 92 million people (more than 47% of U.S. adults) cannot read and write well enough to hold an above-poverty-level-wage job. This study also proved that more than 40% of employees in U.S. businesses are functionally illiterate.

When safety training is conducted in the native language of the trainees, whether that is English, Spanish or any other language, the training will still be flawed if it does not account for the literacy level of the audience.

A study by Elizabeth Szudy at the University of California at Berkeley found that most training materials are written at a college reading level and many materials, like Material Safety Data Sheets, are written only in English. One of the suggestions that came out of her study was to design training materials that rely less on reading.

Sherry Baron, M.D., of NIOSH has reported that the form of the training and not just the language is important. She also emphasizes that foreign born workers may not be literate so that visual aids are more effective than the written word.

Very often, safety concerns and regulations can be conveyed without words by the use of pictures or other visual clues. A good example is the standard red, yellow and green traffic light. Most people in America recognize these signs and understand that red means stop and green means go. Even when these colors are used on workplace equipment controls, most people associate red with stop and green with go. When workers from other countries begin to work in American workplaces, it is important that these colors mean the same things.

A related situation has arisen within the European Union. The formation of the European Union has allowed people to travel and work more freely in countries other than their own. When this occurs, it is even more important that colors and other safety signs have even more uniformity. The British Safety Council states “freedom of movement of persons and services has considerably increased the risk of accidents at work and occupational diseases.” Because of this the British Safety Council has required that all safety signs and colors meet European Standards.

Still, many interactive safety training games and activities rely on the ability of the trainees to read and write. A great safety training game for most classes is Safety Bingo where key words and phrases related to the class topic make up the squares on the bingo card. (This activity has been discussed and shared in previous PDC Proceeding papers on safety training games). Unfortunately, employees who cannot read or write English will have difficulty playing, and thus learning, from this game. Whenever any safety training activity is used, it is very important to make sure that the activity is a good match for trainees and this includes making sure that it is easily understandable for everyone in the class. If there are any doubts about the ability of your trainees to read or write, games and activities should be selected that rely on visual aids instead.

A few suggestions for safety training games and activities that can be used with trainees who do not read or write English well, either because they are non-native English speakers or because they are illiterate, are described below.

Suggested Training Activities

Safety Lotería—Safety Lotería is a version of a popular Mexican game called Lotería. If you have played Safety Bingo, you know that the game boards have words or short phrases related to the class topic. Safety Lotería is like Safety Bingo but instead of words on the game boards, there are small pictures. The game can be played very simply by the Trainer randomly selecting a picture and then showing the card with the picture to the trainees. If a trainee has that picture on his or her card, they mark it off. Just like in regular Bingo, the first person to get all of the pictures in a line (across or down) marked off, wins. While this is an amusing game, it does not do a good job of teaching new skills related to safety. To make the activity more educational, the picture selected should not simply be shown but a hint or even a small riddle should be said that describes the picture. (If your audience is not English speaking, this description or riddle will need to be said in the language of the trainees). When the game takes place in this way, trainees need to think about the class content before selecting the appropriate square on the board. An effective game in safety training is one that is an equal mix of chance and skill. Without the short description of the picture, Safety Lotería is all chance. By asking trainees to figure out what safety picture you are talking about by a short description or question, skill is involved and the game is more effective as a safety training aid.

Hidden Pictures—Hidden Pictures is a game that includes a small group working together to identify hazards in a supplied photo or drawing. A photo or drawing should have at least 6 hazards included and the hazards should not all be obvious. If possible, the hazards should be related to class content although this is a great game for general safety training tips such as training on hazard recognition. With most safety training games and activities, it is recommended that a class of trainees be divided into small groups. When using Hidden Hazards, each smaller group of trainees can be given a different photo or drawing or they can all be given the game drawing for comparison purposes. If the same drawing is used, the groups should be spaced far enough away from each other so that they cannot hear each other discussing and identifying the hazards. After 10 minutes or so, stop the group discussions and ask each group to report how many hazards they identified. It is highly likely that the various groups will have identified a different number of hazards. Start with the groups with the biggest list and ask them to identify their hazards. If they name something that another team did not include it will likely lead to lively discussion and that is the purpose of this exercise.

PPE Match Up—PPE Match Up is a good activity to use when providing chemical hazard awareness training or any training that involves the proper use of personal protective equipment. Before class, several pairs or pieces of personal protective equipment that is mentioned in the class should be collected. If possible, samples of various hazardous materials, particularly those mentioned in the class, should be collected. If a material is too hazardous to bring into the classroom, then an empty bottle or other container can be used but with a label on it saying “Pretend Sample for Training Only – (name of material). After you have presented the applicable training information, divide the training class into teams. Give each team a set of the PPE you have collected. Assign each team a different color and then place a large sheet of paper in each of these colors in front of the various hazards you have brought into class. When you say go, each class will need to put the PPE they have been given in front of the hazard for which it is best suited. Each team’s PPE should be placed on the corresponding color paper so it is obvious which team’s equipment is in front of each of the various hazards. After all teams have finished, go to

each of the different hazards and see what the teams thought was the most important PPE for providing protection against that hazard. Review the right and wrong selections, and why.

Safety Sequence—Safety Sequence is a good activity for training topics that include a series of steps or a safety procedure, such as lock out tag out or confined space entry, Safety Sequence (with pictures) can be a real learning tool. To organize the game, you will need to find a simple illustration or photo (one you take yourself is fine if the picture is clear and clearly shows the step) of each step of the procedure. For a simple lock out tag out exercise, the photos you might want to include would be 1) Determine the Hazards, 2) Notify Others, 3) Isolate Energy Sources, 4) Remove Potential Energy, 5) Verify Lock Out, 6) Perform Work, 7) Prepare to Start up again, 8) Remove locks and tags, 9) Test Equipment, and 10) Notify others when work is complete. Make copies of these photos or drawings so you can put one step on a small card and make several sets of cards (one set for each group of trainees). After the material has been presented, shuffle the cards and give a set to each group. Tell them they have 1 minute to get the cards in the proper order, with the first step of lock out first in the pile and the last step in the lock out tag out procedure should be last. After one minute has passed, tell the groups to stop and review the steps in the proper order. Ask each group if they have the same order or if they disagree. If the groups complain about having only one minute to do the exercise, begin a discussion about how difficult it can be to make important decisions when rushed and why it is very important to thoroughly understand critical safety procedures.

Pin the Pain—Pin the Pin is another exercise that is great with any topic related to chemical hazards or any topic that covers injury and illness prevention for specific body parts. To play “Pin the Pain”, you can make a simple line drawing or find a simple body outline that is not copyright protected. After presenting the class information, give each team a copy of the body outline and a pack of push pins or small colored stickers and ask them to “Pin the Pain.” Based on the information you just presented, tell the trainees they are to identify where injury or illness could occur as a result of improperly working with the chemical or activity you are describing in the training class. For example, if you were presenting a class on the safe handling of hydrofluoric acid you would expect each group to “Pin the Pain” on the eyes, skin, heart, nose and lungs for example. After each team has had the chance to “Pin the Pain”, ask them to present their body outline and explain why they pinned the areas they did.

Million Dollar Madness—Million Dollar Madness is a great way to open a longer safety training class. To play, you first divide the class into teams. If there are different departments represented in the class it might be a good exercise if people from the same departments or work areas were put on the same team. Tell the class that an anonymous donor dropped off a bag with 100 million dollars on the company doorstep last night with the stipulation that the money be used only for safety improvements. With money not an issue, each team has 5 minutes to develop a list of improvements they would make or new equipment they would buy using that money that would directly improve plant safety. Remind the class that money is no object. After all teams are finished, ask the teams to share their wish list with the class. It is a good idea to have someone write all the ideas down (or you can do it on a flip chart) so that all serious ideas can be saved and shared with management for possible consideration. Encourage discussion by asking “How did the fact that you have unlimited funds change your thinking”? “How can you make some of these ideas come true”? and “Which ideas surprised you as being more or less expensive than you expected?”

Back to Basics—Back to Basics is another great activity to play as trainees come into the class. As your trainees enter a class, tell them you are putting a picture related to the class on their back with a sticky note (extra strong PostIt® notes work well with this activity). The trainee's goal is to find out what the word is by asking yes or no questions of the other trainees. When they figure out the picture on their back, they can sit down. This activity works best for refresher classes where employees are familiar with the specific vocabulary to be used.

Further Considerations

Even with careful planning and consideration for language and literacy levels, cultural differences can also come into play. For example, some trainers have found that with Latino audiences they need to be more informal and joke around with the trainees in order to build a relationship while a more formal approach might be better for an all American audience. NIOSH is experimenting with “tele-novelas (Spanish-speaking soap operas) to communicate with Latino immigrants. The tele-novela is very popular in many Latino cultures and this could be one way to increase understanding in some populations.

Another cultural difference to keep in mind is that people from American or European cultures look at cartoons or illustrations from left to right and persons from some other cultures look at illustrations in sequence from right to left. If you were to play a game like Safety Sequence with a group that reads from right to left, this difference must be kept in mind when reviewing the sequences, or the final order that the teams come up with.

If trainees speak basic English and can read and write, even at a low level, there are some things safety trainers can do besides just using visual aids. There are techniques that can help anyone to improve their communication and these classes could help safety trainers to develop training materials that enable trainees to comprehend more information. Writing and developing training materials that are at the appropriate level can be done with a little planning and possibly training on the subject for the safety trainer.

In the study conducted by Elizabeth Szudy, she suggests that when illustrations or photos are used, they only be used if there is a very clear connection to the training material. For example, if you wanted to add a visual aid to a PowerPoint presentation on electrical safety and thought that a graphic of a tombstone might help reinforce the message that electricity can be dangerous, this type of indirect relationship might be confusing for the trainees. Graphics or illustrations that are more directly related to the slide would be more effective.

The number of employees that need good safety training will only continue to grow. This is especially challenging since much of this group may not read or write or even speak English very well or at all. By incorporating interactive training activities that rely more on visual aids than written materials, safety training will be more effective for everyone.

Internet Resources for more information

Workplace ESL Online

<http://archive.cdllponline.org/workesl.html>

Southern LINC'S--Workforce Education LAB

<http://slincs.coe.utk.edu/gtelab/>

NIFL-WORKPLACE Online Discussion List--NIFL-WORKPLACE

<http://www.nifl.gov/lincs/discussions/nifl-workplace/workplace.html>

National Institute for Literacy's Fact Sheet on Workforce Literacy

<http://www.nifl.gov/nifl/facts/workforce.html>

National Institute for Literacy Special Collections--Workforce Education

<http://worklink.coe.utk.edu/>

U.S. Department of Labor Employment and Training Administration

<http://www.doleta.gov/>

American Society for Training and Development

<http://www.astd.org/>

About.com's Workplace Literacy Resources

<http://adulthood.about.com/education/adulthood/msub170.htm>

Literacy Skills Analysis for Job Training

<http://literacyonline.org/products/ncal/pdf/TR9807.pdf>

What Works? Literacy Training in the Workplace, Videoconference Participant Materials

<http://literacyonline.org/products/ncal/pdf/PR9501.pdf>

Developing and Evaluating Workplace Literacy Programs: A Handbook for Practitioners and Trainers

<http://literacyonline.org/products/ncal/pdf/PG9601.pdf>

A Review of Recent Workplace Literacy Programs and a Projection of Future Challenges

<http://literacyonline.org/products/ncal/pdf/TR9604.pdf>

Evaluation of Workplace Literacy Programs: A Profile of Effective Instructional Practices

<http://literacyonline.org/products/ncal/pdf/TR9603.pdf>

The Military Experience and Workplace Literacy. A Review and Synthesis for Policy and Practice

<http://literacyonline.org/products/ncal/pdf/TR9401.pdf>

Self-Assessed Skill Needs and Job Performance

<http://literacyonline.org/products/ncal/pdf/TR9408.pdf>

OSHA in Espanol Website
<http://www.osha.gov/as/opa/spanish/>

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