

Nanomaterials – Facilitator Guide

Overview

Preparation

Read the following resource:

ftp://ftp.cdc.gov/pub/Documents/OEL/12.%20Niemeier/References/GTZ_2007.pdf as an example of plan development, implementation and charting. This is an industrial application, but does provide a framework and shows some approaches to facilitating.

Read the following regarding nanomaterials and workers: *Training Workers on the Risks of Nanotechnology*. http://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=9094

Review Resource 1; make any additions that are specific to the group of participants. Be ready to provide the listing electronically to everyone, so that participants can click to find information (Activity 1).

The exercise is designed for participants to use technology (computer, iPad, smart phone, tablet). Be ready to provide Resource 3 electronically to everyone, so that participants can click to find information (Activity 2).

Check all of the websites prior to facilitating the program to assure that the link is still live and the content continues to be appropriate.

To use this activity as part of TUR or REL adjust the agenda for the usual program to accommodate the new material.

Only one facilitator is necessary for this exercise. To maximize learning, the class size should be limited to no more than 24 participants.

See page 6 for what needs to be sent to UC, in addition to the program forms sent to Evaluation.

Agenda

Introduction	15	minutes
Activity 1	30	
Activity 2	30	
Closing (and request for feedback)	10	

Note: Times are estimated

This exercise is developed to be conducted as small group discussions while completing two activities.

1. Identify potential exposures by finding information (Activity 1)
2. Develop a plan to find more information (Activity 2)

The small groups for Activities 1 may need to be changed for Activity 2, as participants determine what each would (as individuals with similar interests or a group) develop a plan to accomplish.

For report backs, you may want to use paper (like large blocks of post-its) or smart board technology. Assure that you have what is needed, as part of overall exercise preparation.

There are no lectures; rather the material that accompanies the exercises is provided as resources. The instructor's role is to facilitate and assure that questions are answered. The purpose of these activities is to encourage participants to use resources (largely electronic for this work) to find information and determine how they can increase 'green' at home or work. When you form small groups will depend on when in the overall program agenda this exercise is used; if the exercise is at the beginning of a program, allow time for introductions. You may reduce time shifting participants in groups if the room is set up for small groups and participants find a seat in a group.

The group of participants may have a wide range of communication skills, and familiarity with technology. Be prepared to assist with devices and help with accessing web resources.

Introduction

Refer to page 1 of the exercise. This provides examples of uses of nanomaterials.

Review the main points of the introduction:

- Nanomaterials are small, manufactured particles (some are round and some are fibers)
- Little is known about health effects
- The market is growing rapidly – more uses daily
- Can be in consumer products and used or worked with at work

Activity 1

Minimum Content Requirement

- Activity 1 table
- Report back

Teaching Method

- Small Group activity

Reference Materials

- Resource 1
- Resource 2
- Resource 3
- (see also overall program preparation)

Questions you may be asked

Some participants may question why we are doing this. Assure participants that we are evaluating training, not participants.

Refer to page 1 of the exercise that shows the wide use in consumer products. It may be useful to bring some products to training, or ads for them—like the socks with aluminum nanoparticles to decrease smell.

Some participants may be very excited by the technology, and some may be intimidated. Be prepared to describe local internet access points to those without it at home. Also, it may be helpful to suggest that participants can involve their children/grandchildren in this activity.

Audio Visuals

- Easel chart
- Technology

Special Space Requirements

- Work areas for small group

Suggested Instructor Preparation

- See overview preparation

Activity 2

Minimum Content Requirement

- Activity 2 table and Plan (in format chosen by participants)
- Report back

Teaching Method

- Small Group activity

Reference Materials

- Resource 1
- Resource 2
- Resource 3
- (see also overall program preparation)

Questions you may be asked

What if the label only lists materials, not nano-scale materials? This is often the case; consumer products generally show an 800 number that can be called. Also, look at the manufacturer website and listings of products provided on Resource 2.

Some participants may question ‘ownership’ of various steps in a plan. This is a point-person, so that everyone knows who is working on what. This person may experience barriers, and the entire group should be prepared to help.

Some participants may not want to report back. That is fine.

Audio Visuals

- Technology
- Easel chart

Special Space Requirements

- Work areas for small group

Suggested Instructor Preparation

- See overview preparation

Closing

Ask to copy each of the plans (Worksheet), and obtain a contact person for follow-back. Depending on the participants, you may have a plan for each person, or for groups of people, or one for the entire group. There is no one, model plan – it depends on the participants and the goal. For example, the entire group may have one overall goal such as ‘find information about products’, but each participant will select a product of interest to him/her (example, cosmetics, paints, sunscreen). In this case, the plan may be a one-liner for each participant, with a personal date of completion. Each person is the owner of his/her contribution. Alternatively, several groups may select different plans to achieve a reduction (example, six folks want to find more information about sunscreens; four participants want to learn about paint components; another group of five is going to research cosmetics that they use). Each of these will use different resources, have varying timelines, and have a different contact person who is coordinating implementation. Other hybrids are just as useful. The exercise is to empower trainees to document their impact (and barriers). Everyone should think outside the box, including for the format of the final Worksheet.

Assure that everyone understands that there will be follow up to gather information on the use of the training, and provide better training to overcome barriers identified as plans are implemented. Explain that the contact will come from you or someone at the training center (local, not UC) soon after the expected completion date. You will ask:

- If the goal was achieved
- How the plan was altered
- What caused delays
- Barriers experienced and any approaches to resolve

Materials you must send to Tim Hilbert at completion of the training

- Send comments.
 - Any aspects of the exercise—what works/what does not work
 - Length of each activity (need to refine the agenda)
 - Changes needed
- Send Activity 1 Summary from report-back
- Send Activity 2 plans with expected completion dates (but without name of the contact, or e-mail or phone numbers.)