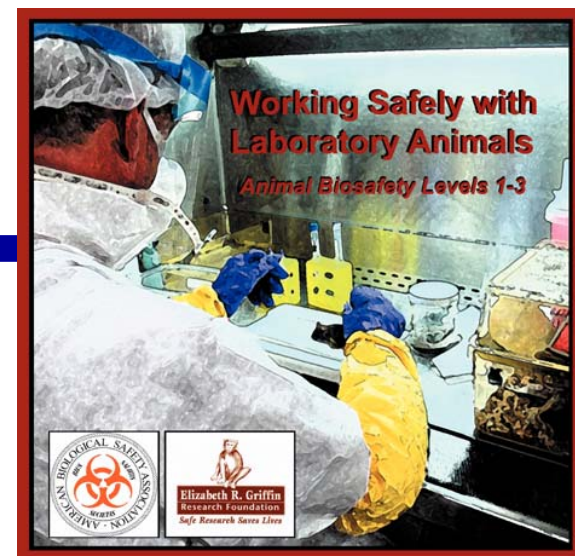
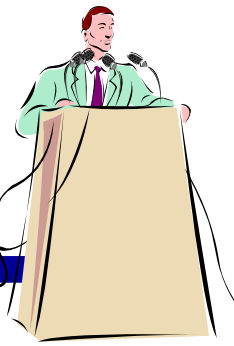


Development of an ABSA Biosafety Training DVD for Animal Handlers

Tom Ouimet
Ben Fontes
Randina Palmisano
Yale University



This presentation will review:

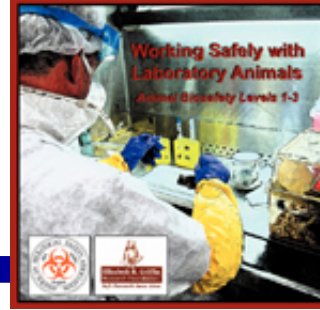


- The DVD development process
- The rationale behind the organization of the videos/DVD
- The content of the instructional material
- How the material might be used

It will not describe the technology used in its development



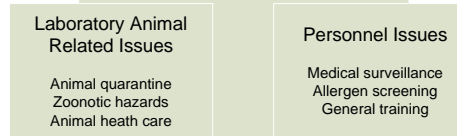
Project Objectives



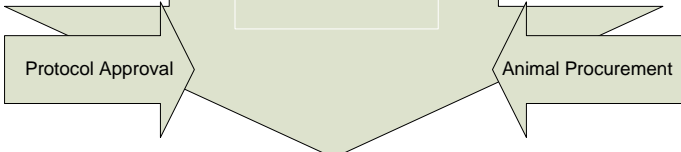
- Build a DVD based product that demonstrated best practices when working with lab animals at ABSLs 1-3
 - consistent with 5th edition BMBL
- Arrange material in a manner that could be readily assimilated and potentially used as “just-in-time” training
- Make it look and feel real



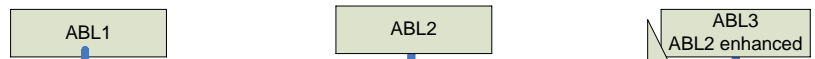
Project Scope (creep)



Risk Assessment/
Safety protocol
Development



A menu will be created at this point in the program which will allow individuals to view short summary videos of the requirements for conducting work at the BL1, BL2, or BL3 levels (demonstrating appropriate technique and use of PPE but not describing it in any detail) OR moving to a menu (left hand column) which (when items are selected) will present the information identified in the arrow below. Note that we have created a training matrix which the trainer can select from and move through, presenting only the information appropriate for the particular population being trained.



Personal Protective Equipment

Work Practices

- Handling/restraint
- Use of sharps
- Transport
- Housekeeping/Decontamination/cage cleaning
- Waste handling

The topics in the left hand column can be selected from a menu and the issue described sequentially (starting at the BL1 level and then any additional requirements when working at the BL2 and BL3 levels). Trainers may stop the progression at the BL1 or BL2 level and return to the menu containing the topics in the left hand column or return to the menu described above and view the summary videos for each of the biosafety levels.

The discussion (generally) will focus on mice and rats (rodents).

For each containment level a short presentation will provide an overview of the risk group characteristics, facility features, entry procedures, safety equipment used, generic workpractices, and exit procedures. (see list in box). Any special medical surveillance or training requirements for working at this level will be described.

Information to be included in the vertical path (each ABL level)

- Risk group characteristics
- Facility features
- Entry procedures
Including any special medical surveillance and training requirements
- Generic workpractices
Housekeeping
Personal hygiene
- Safety Equipment
(primary containment devices)
Micro isolator cages
Ventilated caging systems
Biological Safety Cabinet
Cage Cleaning Station
- Exit procedures

Post-exposure Response

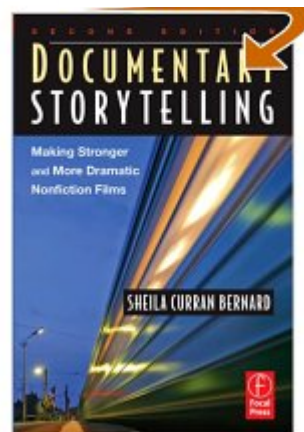
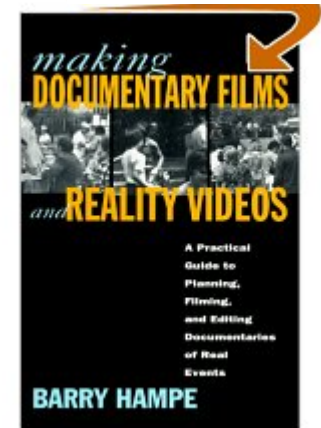
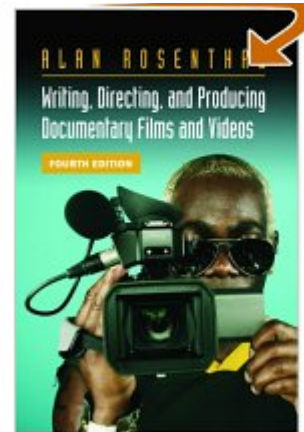
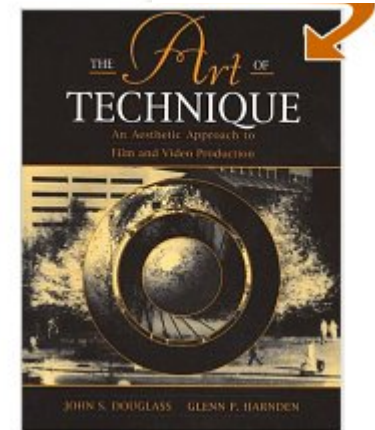
Emergency Response
(cage dropping)

Incident Reporting
(animal bites and scratches)
(missing animal)



Video Production Process

- Pre-production
- Production
- Post-production
- Distribution



Pre-Production

- Concept/Outline/Tone
- Budget
- Narrative/Scripts/Storyboard
- Locations
- Casting
- Equipment

This is the longest phase but if done well the rest usually goes quickly and smoothly.

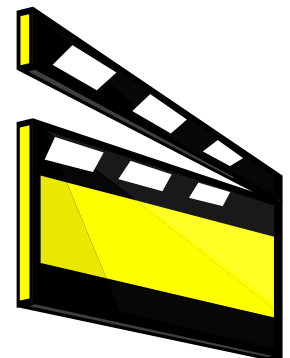


Production



Collecting all the pieces that will make up the video...

- **Visuals**
 - Video
 - Still images
 - Graphics
- **Audio**
 - Narration, voice over, etc.
 - Sounds
 - Music



Post Production



- Edit Video and Audio
 - select and trim video clips and audio segments and add transitions, still images, graphics
- Embellish
 - add sophisticated effects, animated graphics, add text animations and titles, composite layers, color correction
- Add Soundtracks
 - voiceovers, music, special audio effects



Design Process



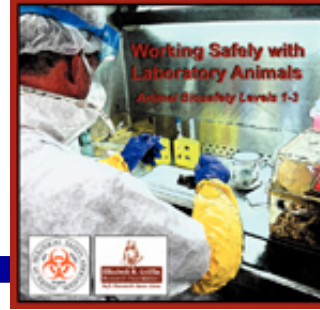
- Developed a list of practices we wanted to demonstrate at each ABSL
- Identified what was acceptable behavior/technique at each level (matrix)
- Created a draft script
- Developed a shot list
- Captured images
- Edited material and modified script – images based on what we found in the field and reviews



REVIEWS



Project Personnel

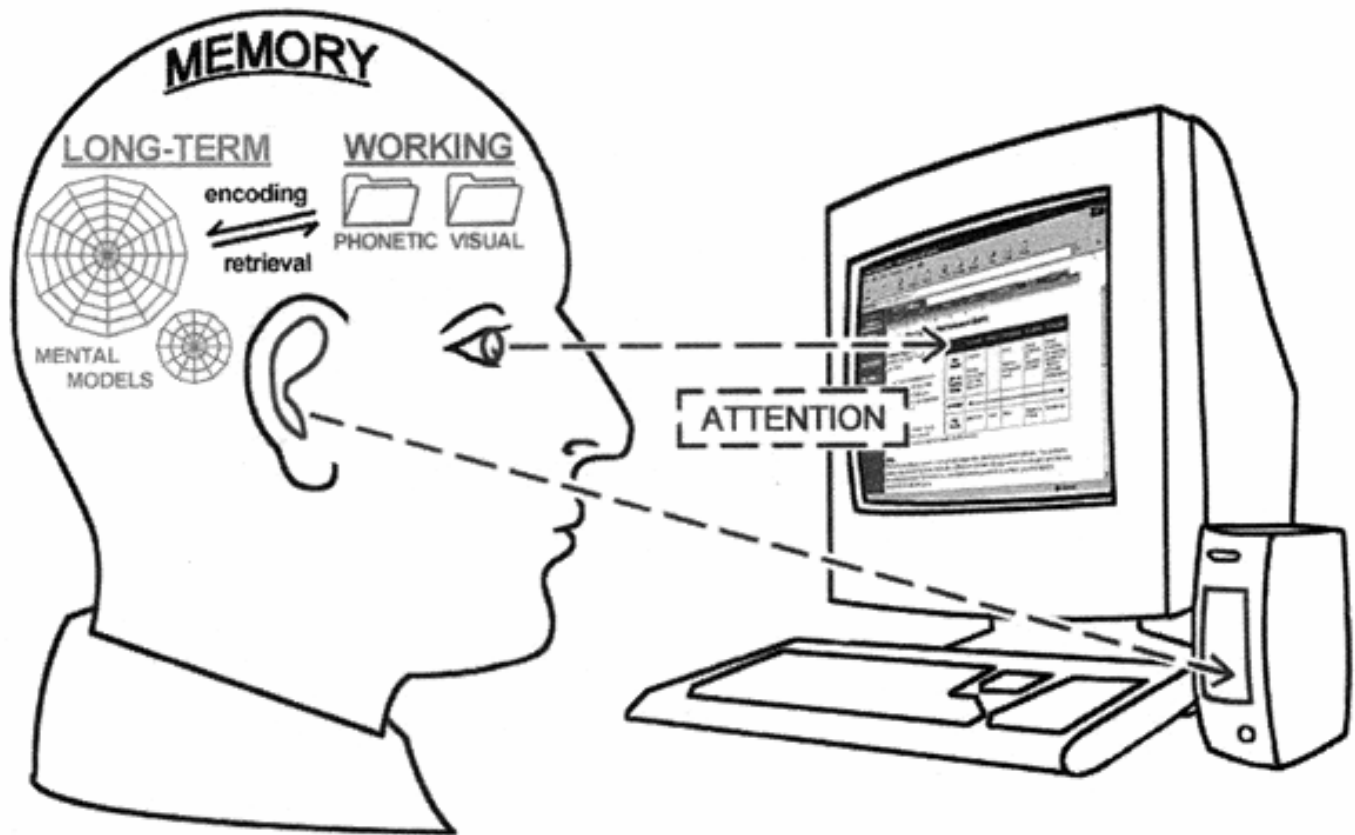


- Project Consultant
- ABSA Project Team
- Lots of Contributors
- Reviewers
 - **Biosafety**
 - **Animal handlers**
 - **Veterinarians**
 - **Administrators/Public relations**



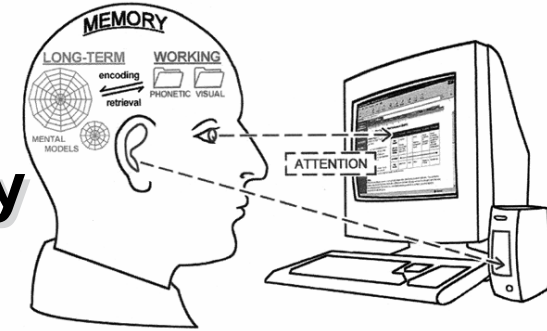
Making Training Stick... How Should it be Organized?

Dual Coding Theory



How do we improve the chances new information will be assimilated?

Organize and present what you teach in a way that makes sense to learners.



- Organize information into logical sequences in quantities that can be processed by working memory.
- Structure the information so that it is easily integrated into existing mental models.



Organized Videos Around How Animal Handlers Perform Their Jobs



- Characteristics of organisms and facility requirements
- Donning PPE
- Entrance requirements
- Work practices and safety equipment
- Decontamination
- Doffing PPE and exiting

What is not covered...

- Ergonomic issues
- Chemical safety issues
- Radiological safety issues



How Should You Consider Using This Training Material?

- Review the importance of a risk assessment and development of risk management plan
- Play appropriate video, stopping to review key points along the way (and differences in your program)



Other Distribution Methods

- Streaming video
 - RealSystem Helix
 - Windows Media
 - Apple QuickTime
 - Adobe Flash
- MPEG-4



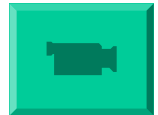
Acknowledgments



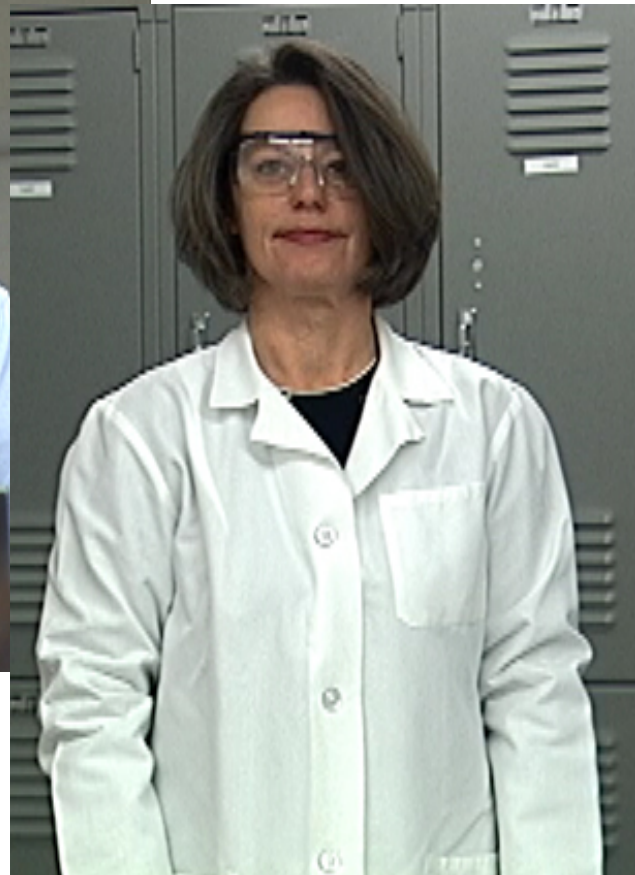
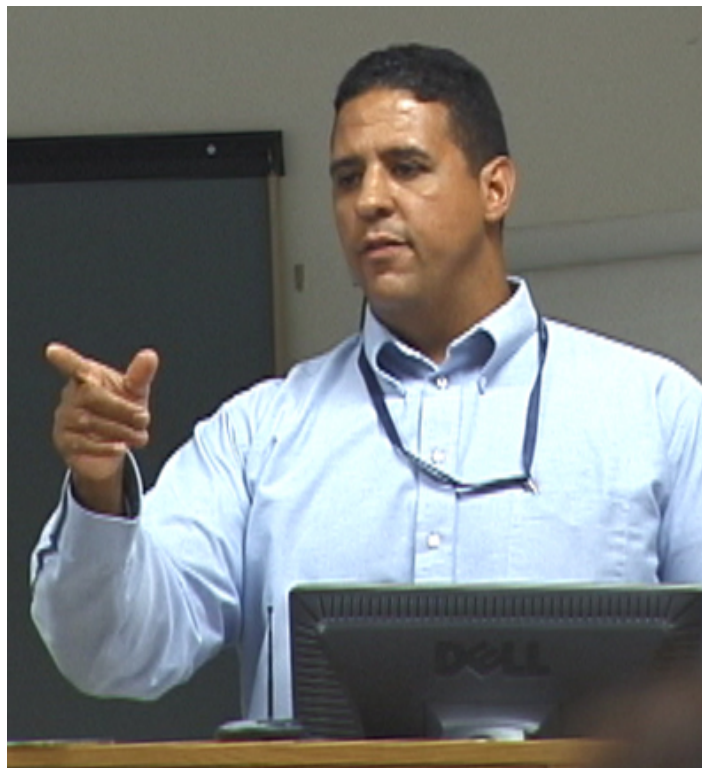
Elizabeth R. Griffin
Research Foundation
Safe Research Saves Lives



- Sponsors
- Project Consultant
- ABSA Project Team
- Contributors



Very Special Thanks To...





Thomas Oulmet, CIH CSP
OEHS2
Yale University

**Working Safely with
Laboratory Animals**
Animal Biosafety Levels 1-3

The image shows the cover of a book titled "Working Safely with Laboratory Animals: Animal Biosafety Levels 1-3". The cover features a photograph of a person in a white lab coat and blue face mask working in a laboratory setting. The person is wearing a white lab coat and a blue face mask. The background shows laboratory equipment, including a biosafety cabinet with yellow and blue gloves, and a rack of test tubes. The title is written in red and black text. At the bottom left, there is a circular logo for the American Biological Safety Association, and at the bottom right, there is a rectangular logo for the Elizabeth R. Griffin Research Foundation, which includes a small illustration of a monkey.



Thomas Oulmet, CIH CSP
OEHS2
Yale University

**Working Safely with
Laboratory Animals**
Animal Biosafety Levels 1

Questions?