Captivating the Jury

Hillary Daluz

Instructor, Tri-Tech Forensics
Forensic Specialist, Forensic Identification Services
Author, CRC Press
Overview

- The scientist
- Testifying as teaching
- How people (jurors) learn
- Visual aids
- Examples and anecdotes
- Explaining scientific concepts to the layperson
The Scientist

- Trained in scientific methodology
  - Analytical skills
  - Research
  - Specialization

Jargon, jargon, jargon!
The Scientist

Venn Diagram:

- Science
- Forensics
- Law

The overlap between Forensics and Law indicates the intersection of scientific knowledge and legal practice.
The Scientist
The Scientist

Diagram:

- Science
- Forensics
- Law

Intersection: Forensics
The Scientist

![Venn Diagram: Science, Forensics, Law]

- SCIENCE
- FORENSICS
- LAW
The Scientist

– “We call expert witnesses to testify about matters that are beyond the ordinary understanding of lay people... and then we ask lay judges and jurors to judge their testimony.”

• Professor Samuel Gross, University of Michigan Law
Testifying as Teaching

What are the qualities of an effective teacher?
Qualities of an Effective Teacher

• Knowledgeable
Qualities of an Effective Teacher

• Knowledgeable
• Relatable/approachable
Qualities of an Effective Teacher

- Knowledgeable
- Relatable/approachable
- Enthusiastic/passionate
Qualities of an Effective Teacher

- Knowledgeable
- Relatable/approachable
- Enthusiastic/passionate
- Uses visual aids, anecdotes and examples
Learning Styles
Visual Aids

• Types
  – Photos
  – Charts, tables and graphs
  – PowerPoint Presentations
  – Show & tell demos
  – Drawings
  – Models
  – CAD programs
Visual Aids
Visual Aids
Visual Aids
Visual Aids
Visual Aids
Visual Aids

Mitochondrial DNA Inheritance
Visual Aids

Latent print from beer can

Left ring finger
Visual Aids

Latent DV-A(A) from Ext. metal trim of sliding glass door ID to T【Benjamin #9 finger】
Visual Aids
Visual Aids
Visual Aids

• Guidelines
  – Clear and simple (less is more)
  – Descriptive
  – Enhance verbal explanation
  – Pictorial representations of complex data
Examples & Anecdotes

• References to things or experiences that are familiar
Anecdotes and Examples

- Qualitative/quantitative information in a latent print → Painting a house
Anecdotes and Examples

• How many points? How close do you have to be to recognize someone familiar to you?
Anecdotes and Examples

- Superglue vaporization
- Boiling tea kettle
Anecdotes and Examples

• Superglue polymerization accumulating on a stair rail

Snow
Anecdotes and Examples

• Levels of detail Recognizing your luggage
Explaining Scientific Concepts to the Layperson

• Avoid/explain terminology
  – Sufficiency
  – Cyanoacrylate ester
  – Macro photography

Jargon, jargon, jargon!
Explaining Scientific Concepts to the Layperson

• Explain acronyms
  • SNP
  • FLS/ALS
  • PCR
  • GCMS
  • RUVIS

Jargon, jargon, jargon!
Explaining Scientific Concepts to the Layperson

1. Pick a scientific technique/concept that applies to your job duties and responsibilities
2. Write out an outline or narrative explanation as if to a layperson
3. Practice your explanation out loud to a colleague
4. Have the colleague give constructive feedback
5. Revise your explanation
6. Practice your explanation out loud to a layperson
Explaining Scientific Concepts to the Layperson

Night photography
Macro photography
Contamination
RUVIS
LASER
Magnetic fingerprint powder
Cyanoacrylate fuming
Ninhydrin/DFO/Indanedione
Developing fingerprints in blood
Amido black
Chemiluminescence
Physical developer

Latent print
Powder processing
Fluorescence
Areas of the palm (hypothenar, thenar, interdigital areas)
AFIS
LiveScan
ACE-V
Oblique lighting
Fluorescence
Latent print
ALS
Hillary Daluz
hilmo1@mac.com
415-298-1870

Fundamentals of Fingerprint Analysis, Second Edition

Fingerprint Analysis Laboratory Workbook, Second Edition

CRC Press, 2018