

It's not you, it's me

Communicating Results in Forensic Reports and Testimony

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NIST Workshop: Communicating Forensic Findings
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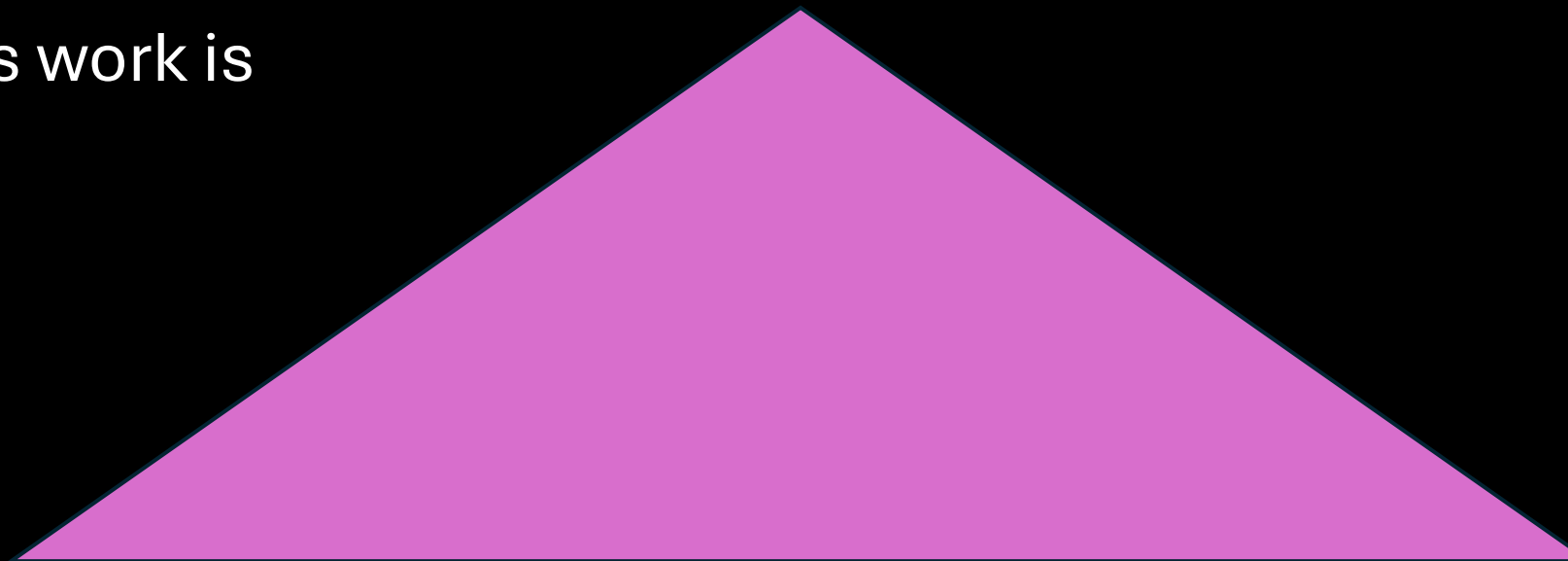


TLDR:

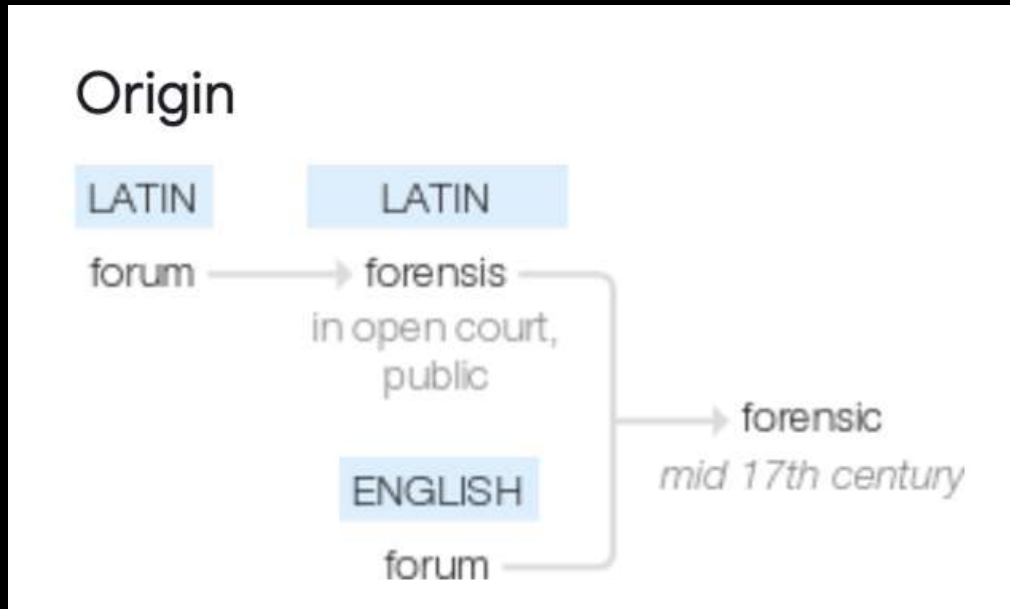
Science
communication
research explains
WHY this work is
so hard.

You need to set your
audience up for success.

Let's train scientists in
the actual skills
required to do that.



Why does this matter?



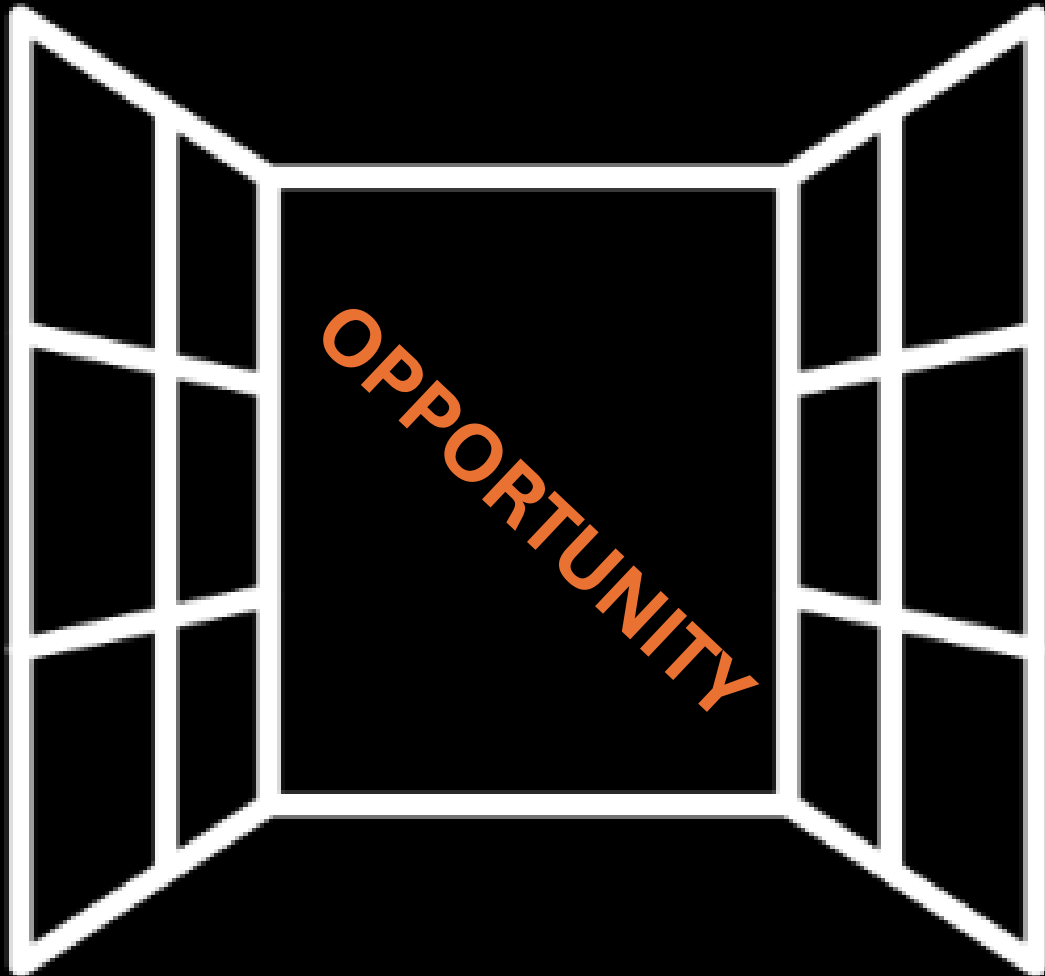
1) Relating to or denoting the application of scientific methods and techniques to investigation of crime.

2) Relating to courts of law.

Mid 17th c. from Latin *forensis* “in open court, public,” from *forum*

Forensics exists to be communicated.

Now is our chance to get it right!



“...amidst the furor over the most “correct” or “accurate” way to present evidence, the perspective of the fact-finder is often lost. **Without comprehension, correctness is moot.**”

Communication Challenges

Content (Science Communication)

Complexity

Subjectivity/
Uncertainty

Language

Structural (Reports + Testimony)

Adversarial

Deficit v.
Dialogue
Model

Performative

Norms of
writing or
formal
courtroom

Norms of Scientific Writing

Following this PCR procedure, 1ul of fluorescently-tagged, amplified DNA product was added into the prepared CE mixture tube.

*Following this PCR procedure, 1ul of fluorescently-tagged, amplified DNA product **was added** into the prepared CE mixture tube.*

Passive voice

Transition phrase

Following this PCR procedure, 1ul of fluorescently-tagged, amplified DNA product was added into the prepared CE mixture tube.

Passive voice

Transition phrase

Adjective chain

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Noun stacking

Passive voice

Transition phrase

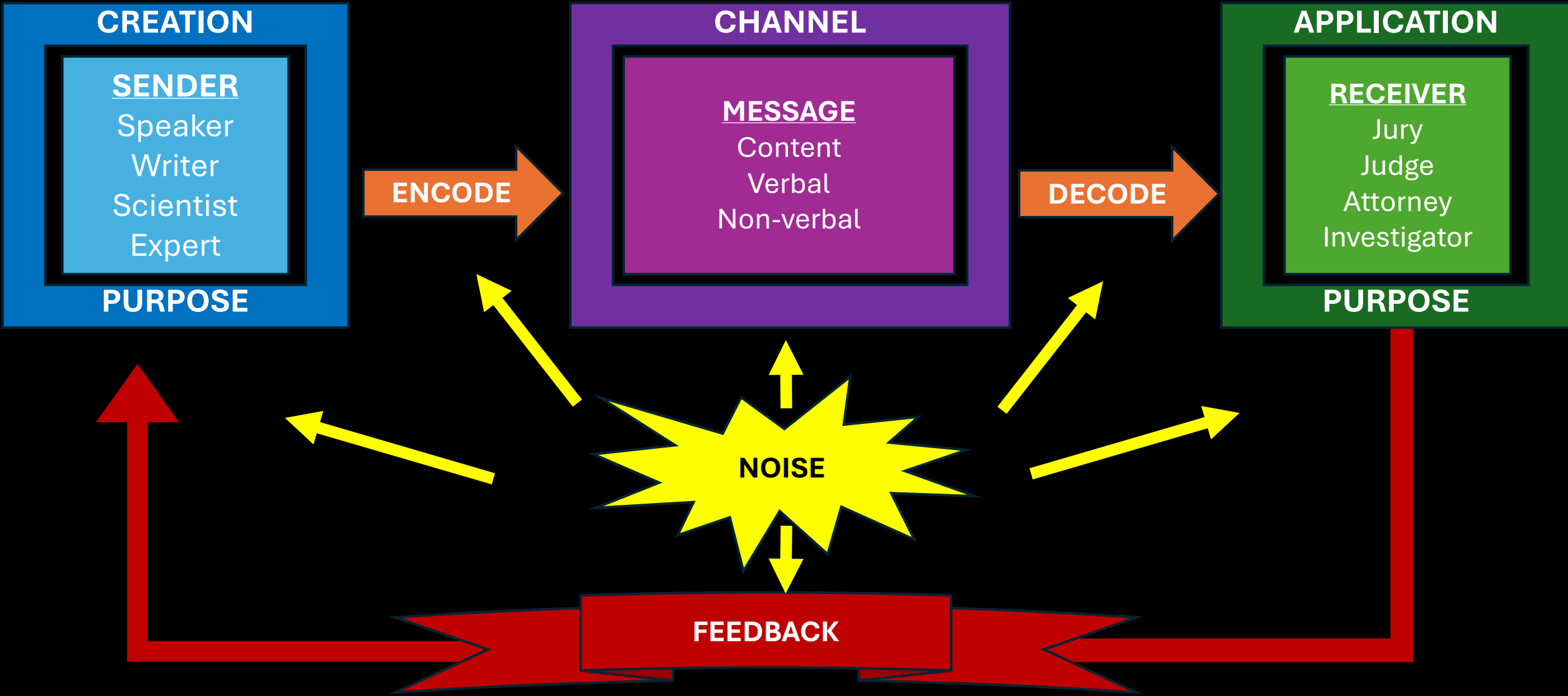
Adjective chain

Following this PCR procedure, 1ul of fluorescently-tagged, amplified DNA product was added into the prepared CE mixture tube.

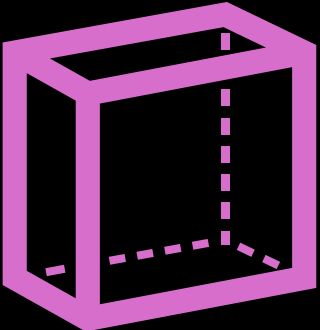
Noun stacking

Passive voice

Communication as a 2-way process



Research-driven Communication Theories



Framing Theory



Primacy, Recency, Repetition Biases

Affect heuristic for risk assessment



Narrative validity



Ordering Information

SCIENTIFIC
NORM

HUMAN
COGNITION

Background

Bottom Line

Supporting
Details

So, What?

Results &
Conclusions

Supporting
Details



Use the world of Science Communication research!



- Frame of Reference/
Analogy shifting
- Active listening →
Adaptability



- Constructive Empathy
- Building a narrative
- Language Recognition



Now is our chance to IMRPOVe FS communication!



Rutgers Medical Researchers



"The equality of participants (despite our different positions in the medical school/hospital hierarchy outside of the experience) was a great tool for exploring new ways of communicating and building community."

Based on local success, we invited leaders in Medical Improv from around the country to Duke for the first national consortium aimed at providing resources and training for other institutions that are interested in incorporating Medical Improv into clinician training.

Use the world of Science Communication research!



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Adaptability



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- Building a narrative
- Language Recognition



Thank You!

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Leverhulme Centre for Forensic Science Research

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Core Competencies

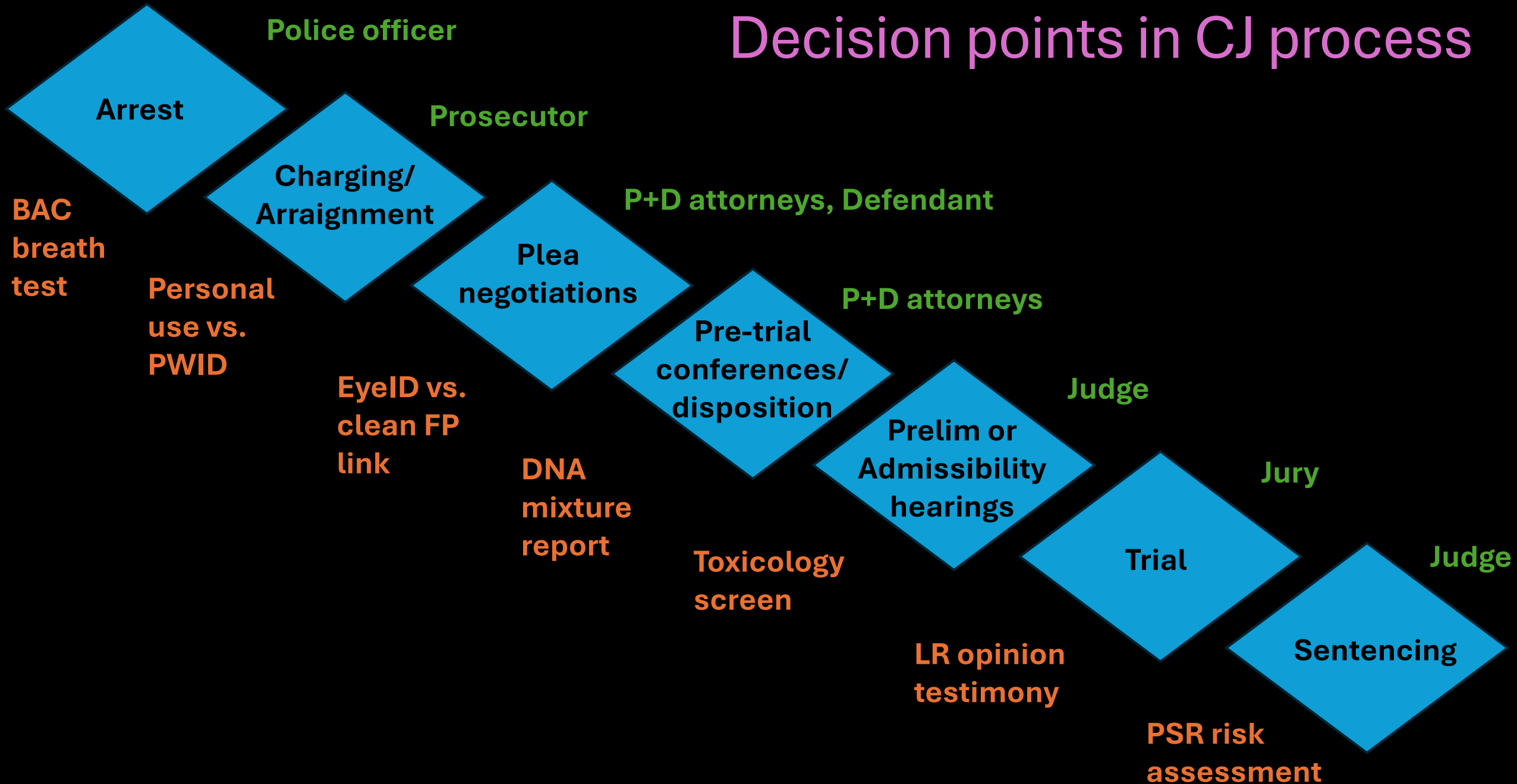
- Frame of Reference/Analogy shifting
- Active listening → Adaptability
- Constructive Empathy
- Building a narrative
- Language Recognition



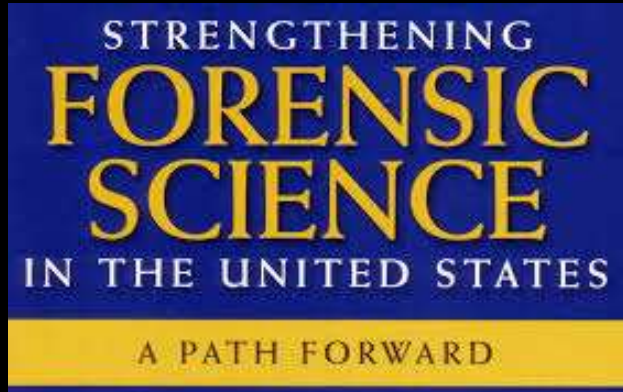
NORMS OF SCIENCE WRITING

- **Passive Voice** - When the action itself is more important than who performed the action, i.e. in methodology sections, the experimental process is the subject of the sentence.
- **Transitional Words v. Topic Sentence** – continually putting steps and inferences in context, indirectly justifying choices by putting basis in dependent clauses.
- **Compound Nouns and Adjective Chains** - combining nouns and adjective chains or multiple nouns to create lengthy multi-part nouns with greater precision and accuracy.

Decision points in CJ process

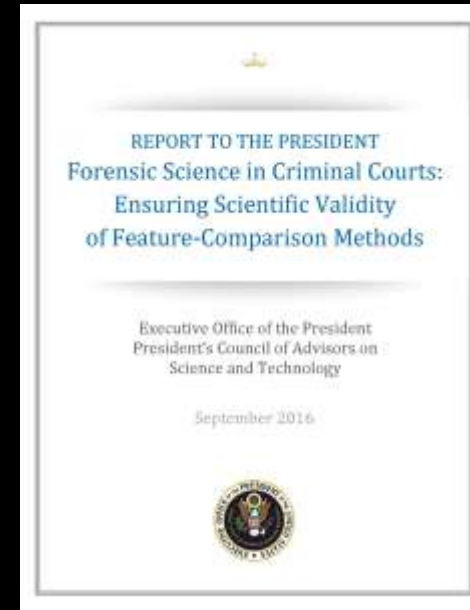


Some people agree!

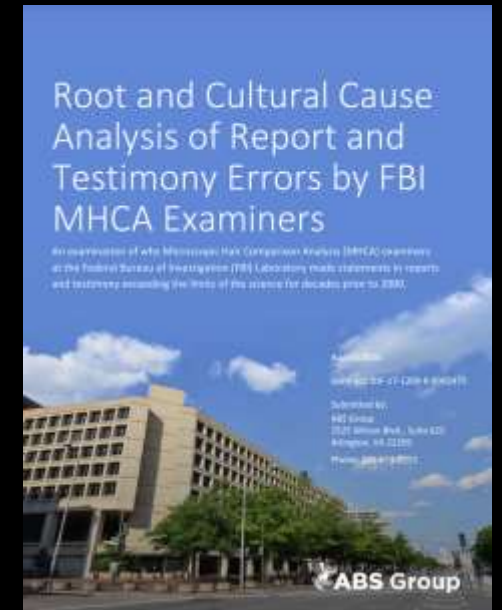


Communication as a “core element” in cross-disciplinary continuing forensic education training

Communication as “required component” of forensic Training-to-Competency programs



Lack of standard language for testimony identified as a significant problem



Testimony monitoring and review adopted as corrective measure.

Good communication is becoming even more important.



What FSSP Leaders Should Know About Artificial Intelligence and its Application to Forensic Science



- Evaluative/LR opinions in more disciplines.
- Software and AI analytical bases for interpretations.

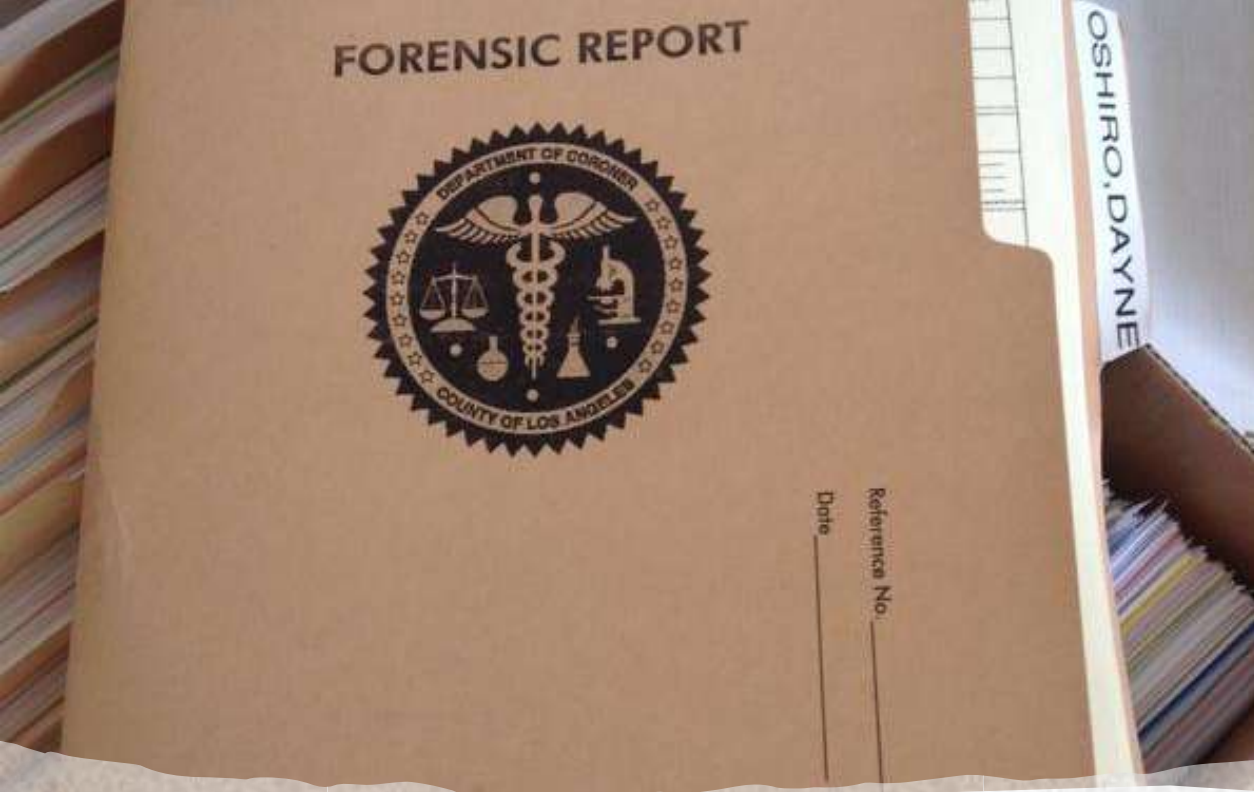
The Courtroom is a terrible model for communication!



Testimony is the Evidence.



Forensic Science findings
acquire meaning in context.



Forensic Reports and Expert Testimony