

Deadline of Submission of Comments: 30-Jan-23
Document Number: ANSI/ASB Std 014
Document Title: Standard for Friction Ridge Examination Training Program

Note: a specific Proposed Resolution must accompany each comment or it cannot be considered.

#	Section	Type of Comment	Comments	Proposed Resolution	Final Resolution
48	General	T	Is there a reason that "ACE-V" is eliminated from the examination recirculated doc but not the training doc?	Make use of ACE-V consistent among recirculated docs	Accept. The WG for Std 015 will re-address adding ACE-V back into the document for consistency.
7	General		I recognize that we are still in the comment resolution phase of this document, but I agree with Raya's comments about the global practicality of this document and the fact that I think it will likely not be adopted by many laboratories because it is so onerous.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: no actionable proposed resolution; consensus body has previously voted on scope and depth of document as a voluntary consensus standard.
16	General		While I appreciate the detail and comprehensiveness of the document, I believe that this standard will be too difficult and expensive for most friction ridge laboratories to comply with. Looking downstream, if an examiner works in a lab that does not check off every box in this training program, it will be significant fodder for cross examination despite quality analysis by a competent examiner.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: no actionable proposed resolution; consensus body has previously voted on scope consistent depth of document as a voluntary consensus standard.
1	Foreword	E	The word "productively" could be misinterpreted.	Change "productively" to "efficiently"	Accept: "productively" changed to "efficiently"
2	3	E	The use of examiner in the document refers to "competent friction ridge examiner." Since they are referring to the same thing, the definitions should be combine to create a single definition for "examiner."	Merge the definitions of "examiner" and "competent friction ridge examiner."	Reject with modification. Headings updated to mirror TR 016; definitions match TR 016.
45	3.3	T	"Competent" may be misleading in the definitions list as training/experience may not necessarily lead to competency unless the FSP specifies how assess the knowledge/skills/abilities.	Change definition title to "trained examiner", or provide specific and detailed criteria for how competency is assessed	Reject. Definition matches TR 016.
24	3.3	T	The definition doesn't match the definition in Std 015	Change definition to match Std 015 or replace with wording from TR 016	Accept. Replaced with the definition from TR 016.
25	3.4	T	The definition doesn't match the definition in TR 016	Change definition to match Std 015 or replace with wording from TR 017	Accept. Replaced with the definition from TR 016.
47	5.1	T	The section appears to eliminate any minimum requirements for education; not clear why?	Add what the minimum required education is for an examiner, such as hours of training or equivalence to a bachelors etc. - Even if a bachelor's isn't required (which we assume is the reason for the redline), it shouldn't be left entirely up to each lab (what if a lab decided no education were needed?)	Reject: education is an FSP hiring requirement.
11	7.2 Biology		Too detailed when this is not as important to comparisons or testimony as this document seems to represent.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: no actionable proposed resolution; consensus body has previously voted on scope of document as a voluntary consensus standard.
3	7.2.3		I don't think it's necessary for some of these biological components of skin to be covered in such depths, such as leukocytes, in order to effectively describe the healing process of skin and, most importantly, how that affects friction ridge arrangements.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: no actionable proposed resolution; the intent of this section is to provide examiners with information about general skin conditions that could affect image comparison.
4	7.2.5.2		The trainee should be able to explain the possible outcomes of healing skin (e.g., no scar, visible scar, or invisible scar) and why these different outcomes arise. I also don't think that a friction ridge trainee should even try to articulate "why these different outcomes arise". That is a question for a medical professional. How these different scars AFFECT friction ridge arrangements is all that is applicable to our field.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: no actionable proposed resolution; the intent of this section is to provide examiners with information about general skin conditions that could affect image comparison, not necessarily to train them in wound identification or medical diagnosis.
39	7.2.7	T	The statement is a requirement to include psoriasis and epidermal warts but there is no requirement in the subsections, only recommendations. This is confusing. Why is the consensus body requiring knowledge psoriasis and epidermal warts? Will an examiner generally experience more people with this disorder? What research suggests this? This seems arbitrary and should be up to the FSP.	Change "shall" to "should" with the second sentence. "At a minimum, this should include psoriasis, epidermal warts, dissociated ridges..."	Accept: "shall" changed to "should."
26	7.2.9.4	E	Typo in wording. It says "major ridges flows in the friction ridge skin"	Remove the "s" in the word "ridges"	Accept: "s" removed from "ridges."
27	7.3.1.2	T	There might never be consensus on the names to add to this list; however, I am having a hard time understanding why John Dondero is on it and not someone like Babler, Purkinje, or Malphigi. I don't mean to take anything away from Dondero. I considered myself well read in the history of fingerprints and I had to look up who he was as I did not even remember reading about him in any of the typical sources dealing with history. Furthermore, he is not even listed in the first chapter of the Fingerprint Sourcebook which deals specifically with the history of fingerprints.	Remove Dondero from the list. I would say add at least Babler but Purkinje and Malphigi wouldn't be a bad addition.	Accept with modification: Dondero removed from list; no further additions.

49	7.3.5.9	T	While it's true there is no scientifically determined "minimum" number of features, this doesn't mean there is a scientific basis for identification based on a certain number of features, period. The statement as written suggests that there IS a scientific basis.	Add "or maximum" after minimum to make clear that the entire enterprise of determining identification based on a particular number of similarities, big or small, is not scientifically supported.	Accept.
17	7.3.6		From my understanding, the US Army Lab is the only one who uses a statistical model. This is a heavy burden for labs to train on.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: no actionable proposed resolution.
40	7.3.6	T	This section is beyond the objective of a FSP training program for a friction ridge examiner. At this time, there is no part of friction ridge examiner's duties that require knowledge of statistical probability and statistics theory. I'm not sure why the consensus body wants to force this. When a valid statistical model has been accepted and implemented into case work then we should consider this as a requirement. But until then, this is a recommendation and not a requirement.	Change wording in section from "shall" to "should"	Reject: This portion of the document was not redlined and the consensus body has carefully reviewed the shall and should statements in this topic area and believe those requirements and recommendations are appropriate for each sub-section.
12	7.3.6 Statistics		Training in statistics can be easily misleading and I do not see agencies being able to train appropriately in this area. I also don't see practitioners being able to appropriately understand statistics without a higher level education in the topic	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: This portion of the document was not redlined and no actionable proposed resolution was provided.
13	7.3.6 Statistics		I also do not see why some of these terms are needed, they are not used within the discipline	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: This portion of the document was not redlined and no actionable proposed resolution was provided; unclear which terms are being referred to.
50	7.3.6.13	T	same (referring to comment #49: While it's true there is no scientifically determined "minimum" number of features, this doesn't mean there is a scientific basis for identification based on a certain number of features, period. The statement as written suggests that there IS a scientific basis.)	same (referring to proposed resolution for comment #49: Add "or maximum" after minimum to make clear that the entire enterprise of determining identification based on a particular number of similarities, big or small, is not scientifically supported.)	Accept.
51	7.4.1.9	T	term "match" is used (suggesting that an examiner can determine a definitive "match" from similarities) but match is not defined in the document.	Define "match" or delete the term and use inclusion (or exclusion versus non-exclusion) instead.	Accept with modification. Section revised to read: "The trainee shall be able to compare rolled impressions of the fingers to support conclusions with the appropriate weighting of observed data."
28	7.4.1.9	E	Missing a word between "basis" and "the"	Add the word "for"	Reject with modification. Section fully modified based on comment #51. Sentence in question was removed.
29	7.5	T	The use of the term medial is incorrect and has been used incorrectly by the latent print community. Medial means towards the midline or middle of the body. These terms are used for the axial skeleton. Being that hands, feet, fingers, and toes are part of the appendicular skeleton, medial and its opposite term, lateral, cannot be used. Terms like distal and proximal are used which the document uses correctly. Therefore, when describing which phalange, it is distal, middle or intermediate, and proximal. In the two books you reference for this section, Cummins and Midlo use the correct terminology whereas Cowger does not. The incorrect usage in Cowger could be the culprit for why LPEs use medial instead of middle.	Change medial to middle, not only in section 7.5 but throughout the document	Accept: "medial" replaced with "middle" throughout the document.
30	7.6.1.1	E	There should be a comma after "thenar"		Accept: comma added after "thenar."
31	7.8.3.4-7.8.3.6	E	add comma after "desiccated"		Accept: comma added after "desiccated" in each section.
18	7.9.1		I'm unclear on the benefits of a FR examiner being able to "debate" statistics.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. "debate" revised to "evaluate"
5	7.9.6 & 7.9.6.2		Digital images should be referred to as being "digitally processed", not digitally enhanced. Enhancement could imply that something has been added to the image that was not originally in the image.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept: "Enhance" replaced with "digitally process" in 7.9.6 and "enhance" replaced with "process" in 7.9.6.2
32	7.9.7	T	It seems a little abrupt to go straight into Analysis without a simple Introduction to ACE-V. It would not need to be extensive just some things like Huber is credited with its creation; there is debate within the community on whether or not it is a method, methodology, or process; has it been validated and does each lab/agency that uses it need to validate it like any other instrument?; is it strictly linear, circular, both and what are the advantages and disadvantages of either.	Add an introduction to ACE-V section and add a few topics trainees should know. Something like: <ul style="list-style-type: none"> •The trainee shall be able to discuss the origin of ACE-V •The trainee shall be able to describe the debate regarding whether ACE-V is a method, methodology, or process •The trainee shall be able to describe the debate regarding the need to validate ACE-V whether globally or in their agency •The trainee shall be able to discuss whether ACE-V is linear, circular, or both and shall be able to describe the advantages and disadvantages of either •The trainee shall be able to describe a general overview of ACE-V and what is done at each step 	Reject. The steps of ACE are provided in Section 7.9, no additional introduction are necessary in this document, as it is the training document. The steps are included in the training, whether it is called ACE or not. The proposed additional text is beyond the scope of this document.

14	7.9.7.5 Suitability		I don't believe categorizing as suitable or non-suitable is sufficient. Many impressions cannot be categorized in isolation and therefore 'potentially of value' is needed as an option	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: "potentially of value" would be an FSP determination and is addressed in this section.
33	7.9.7.12-7.9.7.14	T	In Std 015 it describes suitability for database search but in this document it discusses ABIS suitability. I am ok with either but the CB might want to consider picking one way of describing it and be consistent.		Accept with modification. This document will remain as-is. WG for Std 015 will address modifying to ABIS.
15	7.9.8 Comparisons		This is a very important part of being an expert and a training program needs to be more specific on this topic. It is lacking when to arrive at each conclusion (rules for Source ID and rules for when to exclude) since science is all about having a systematic method for arriving at conclusions. Lacking training in scientific philosophies, e.g., the value of having a systematic method, rejecting a hypothesis, the value of repeatability vs ensuring the conclusion was arrived at appropriately, consensus vs general consensus (these are different concepts in the scientific arena), etc. Many people commented on the confusion with using Bloom's taxonomy terminology. It may be clearer and more usable to agencies if fewer of the terms were used (e.g., 1) familiar with 2) working knowledge and 3) comprehensive knowledge.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject: for consistency, Bloom's taxonomy terminology will be used throughout the document.
52	7.9.9.7	T	Standard discusses an "absolute conclusion" but doesn't define; are examiners allowed to testify to an "absolute" conclusion? Sounds like a conclusion with no error rate or possibility of error.	Eliminate the term "absolute conclusion" or make clear this should not be a term used in testimony.	Accept with modification: sub-section removed.
19	7.10.1		"Foundational validity" is neither a scientific nor a legal standard. We should not adopt this language.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. "foundational validity" and "validity as applied" are direct quotes from the PCAST report (as explained in 7.10.1.6). The quotation marks were added for clarification and to match 7.10.1.6. The term admissibility also added.
35	7.10.2	E	add a comma after "significance"		Accept: comma added after "significance."
36	7.10.3.3	T	Every LPE needs to be able to talk about the error rate studies and be able explain the key points to at minimum the FBI/Noblis Black Box, the Miami-Dade, and the Palm Print Black box studies. This needs to be a shall instead of should	Change "should" to "shall"	Reject: the consensus body has carefully reviewed the shall and should statements in this topic area and believe those requirements and recommendations are appropriate for each sub-section.
6	7.12.1.1		Recite the history of expert testimony in the US. Definitely WAY too broad of a teaching goal. That needs to be greatly narrowed down to be applicable to latent print related matters and even then, major cases that impacted the law at most and give a date range.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. 7.12.1.1 removed and "in the friction ridge discipline" added to the first sentence of 7.12.1 for clarification.
8	7.12.1.1		The trainee should be able to recite the history of expert testimony in the United States. I think this requirement should be removed from the document. First, I think 7.12.1 is sufficient in that it requires that a training program address applicable laws and rules for expert testimony and also motions in limine related to expert testimony. Second, even attorneys could not satisfy this requirement. I personally have been a criminal law attorney for over 20 years and I actually researched the topic of the history of expert testimony in the United States for a merits brief in the US Supreme Court and spent years working on issues related to expert testimony and the Confrontation Clause; and I could not today recite the history of expert testimony in the United States. If I as a lawyer with experience on this narrow topic can't do what this requirement calls for, I don't think that trainees should be expected to. I also think that the topic of the history of expert testimony is not something that a FR Examiner would ever be called upon to discuss during testimony at trial or in a pre-trial hearing. It would be irrelevant and inappropriate. General familiarity with the admissibility standards in a particular jurisdiction (Daubert, Frye, Federal Rules of Evidence, etc) is useful and relevant for FR Examiners who may testify in pretrial hearings, but again I feel that 7.12.1 sufficiently covers this topic.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. 7.12.1.1 removed and "in the friction ridge discipline" added to the first sentence of 7.12.1 for clarification.
20	7.12.1.1		What is the relevance of trainee's ability to "recite" the history of expert testimony in the US? Does the examiner need to recite the history since the 1700s? I'm unclear the benefits of this.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. 7.12.1.1 removed and "in the friction ridge discipline" added to the first sentence of 7.12.1 for clarification.
53	7.12.2.2	T	Thank you for including Brady/Giglio - we will use this standard as an example!	Keep as is! :)	No actionable resolution.
21	7.12.3.9		What is the relevance of trainee's ability to explain why an expert's qualifications may be challenged?	comment from Voting CB Member and Attorney regarding knowledge needed for court	Reject with modification: no proposed resolution; "why" modified to "how" for clarification.

9	7.12.4.6		I don't understand how a trainee would be able to describe how leading questions are used during direct examination or why the ability to do that is necessary for testimony training. A general understanding of the difference between an open-ended question and a leading question is important, but that is already addressed in the cross-examination section.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Duplicate comment. Addressed on Comment #54
54	7.12.4.6	T	I don't understand how a trainee would be able to describe how leading questions are used during direct examination or why the ability to do that is necessary for testimony training. A general understanding of the difference between an open-ended question and a leading question is important, but that is already addressed in the cross-examination section.	change to "used on direct or cross examination"	Accept: "or cross" added to section.
22	7.12.5.1		What is the relevance of trainee's ability to explain the importance of cross examination under the 6th Amendment?	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. Wording updated with suggestion from commenter.
10	7.12.5.2		I don't think it is reasonable to expect a trainee to anticipate which references in the discipline may be used during questioning. This is non-specific and would likely differ case-to-case. I think a trainee's familiarity with important publications in the field is obviously crucial but asking them to essentially have a crystal ball on this topic is unreasonable and this requirement is too general to be implemented or satisfied.	comment from Voting CB Member and Attorney regarding knowledge needed for court	Accept with modification. Section deleted, intent covered in next paragraph.
37	7.13.2.7	E	add "to" after "related"		Accept: "to" added after "related."
23	8.5 (no such section exists in this document)	E	Comma needed between words 'forensic' and 'government'	insert necessary comma	Reject: no section 8.5
41	8.5 (no such section exists in this document)	E	Comma needed between words 'forensic' and 'government'	insert necessary comma	Reject: no section 8.5
46	Annex B, 7.11	E	This section is missing some key human factors articles that would be beneficial for trainees to read and be aware of.	Add the following references: Spellman, Eldridge, & Bieber (2021) - https://doi.org/10.1016/j.fsisyn.2021.100200 ; Kassin, Dror & Kukucka (2013) - https://psycnet.apa.org/doi/10.1016/j.jarmac.2013.01.001 ; Grown & Martire (2020) - https://doi.org/10.1016/j.fsisyn.2020.05.001 ; Quigley-McBride et al. (2022) - https://doi.org/10.1016/j.fsisyn.2022.100216 ; Kukucka & Dror (2022) - https://psyarxiv.com/8pqyt/	Reject. The lead-in to the bibliography states that it is not intended to be an all-inclusive list. There will always be new references, the current list provides a strong foundation for the document.
42	7.7 (Reference 59 in bibliography)	E	Title of reference 59] is incorrect. Title currently is "The Friction Ridges of the Feet". Remove "s" after "ridges" and add "skin"	correct the title of the source being listed.	Accept: "s" removed from "Ridges" and "Skin" added to title.
34	7.9.9.4 (Reference to Bibliography)	T	Close non-matches is an incredibly important topic right now and it might not be a bad idea to put 2-3 articles in the reference section dealing with them specifically.	Add 2-3 articles in the reference section dealing with close non-matches	Reject. The lead-in to the bibliography states that it is not intended to be an all-inclusive list. There will always be new references, the current list provides a strong foundation for the document.
43	7.13 (Reference in Bibliography)	E	Two references by Itiel Dror are not in the same format as the others (and contain some errors). This is the first one.	Dror, I. and J. Mnookin. "The use of technology in human expert domains: challenges and risks arising from the use of automated fingerprint identification systems in forensic science." Law, Probability, and Risk. 2010. 9, 47–67	Accept: corrections made to reference.
44	7.13 (Reference in Bibliography)	E	Two references by Itiel Dror are not in the same format as the others (and contain some errors). This is the second one.	Dror, I. et al. "The impact of human–technology cooperation and distributed cognition in forensic science: biasing effects of AFIS contextual information on human experts." Journal of Forensic Sciences. 2012. 57, 343–352	Accept: corrections made to reference.
38	Bibliography	T	Bibliography for Performance Studies has only one of the FBI/Noblis series and not even the most important one of them all.	Add more of the FBI/Noblis series of papers regarding performance studies. At minimum, add Accuracy and reliability of forensic latent fingerprint decisions.	Accept.