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# Guide for Role-Based Training in Facial Comparison

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## 34 1. Scope

35 1.1 This guide will provide recommendations for a role-based training to achieve  
36 competency in facial comparison tasks.

37 1.2 This guide does not purport to address the specific content of an agency's  
38 training program but instead provides an overview of the structure of role-based  
39 training and levels of training. This document will not address the specific  
40 recommendations for role-based training, such as detailed topics or durations of  
41 supervised casework/mentorship programs.

42 1.3 The intended audience of this document is all personnel involved in facial  
43 comparison.

## 44 2. Terminology

45 2.1 See ASTM E2916-13 Standard Terminology for Digital and Multimedia  
46 Evidence Examination <sup>1</sup>:

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<sup>1</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

### 47 3. Summary of Practice

48 3.1 The consistent and reliable use of facial comparison methods and facial  
49 recognition technologies requires the appropriate training of personnel to  
50 competence. For a description of the different facial comparison roles, see  
51 Sections 4.4. The level of training necessary to conduct facial comparison is  
52 dependent upon the source, quality, quantity, and complexity of the images that  
53 are being analyzed and the purpose of the analysis. Agencies may choose to  
54 provide additional training beyond what is recommended in this document.

55 3.2 Personnel who perform facial comparisons should be familiar with the  
56 capabilities and limitations of relevant tools, technologies, and methods. Those  
57 engaged in facial comparisons should be familiar with the procedures  
58 commonly followed. They should also be cognizant of, and adapt to, new  
59 developments. Additionally, trainers of those performing facial comparisons  
60 need advanced knowledge of these areas. In support of these goals, the  
61 following recommendations are offered to personnel engaged in this field:

62 3.2.1 Undertake validated aptitude testing to gauge innate ability prior to  
63 employment and/or enrollment in a facial comparison training program,  
64 when available. When validated aptitude testing is not available, aptitude  
65 testing should still be conducted. Validated or non-validated aptitude  
66 testing should continue throughout training to evaluate the trainee's  
67 ongoing development.

68 3.2.2 Adhere to a structured and documented training program for determining  
69 levels of competency.

70 3.2.3 Undertake a period of supervised casework/mentorship.

71 3.2.4 Maintain competency after training by pursuing applicable courses,  
72 undertaking scheduled proficiency/competency testing, maintaining  
73 awareness of the current standards, guidance and research relevant to  
74 facial comparison and participating in research when possible.

75 3.2.5 Where applicable, define and employ a quality management system.

76 3.2.6 Maintain awareness of legal developments relating to the use of facial  
77 comparisons.

#### 78 **4. Significance and Use**

79 4.1 There are three broad categories of facial comparison tasks: facial assessment,  
80 facial review and facial examination, and all may involve interface with a facial  
81 recognition system. The requirement for assessment, review or examination will  
82 be dependent upon an agency's end-user requirement and the type and  
83 quantity of facial comparison cases. The level of training for staff undertaking  
84 each of the three tasks differs. In addition, managers and support personnel of  
85 persons performing facial comparisons also need to be aware of the  
86 capabilities and limitations of specific tools, technologies, and methods.

87 4.2 Facial assessment, review and examination are defined in the FISWG Overview  
88 and Methodology of Facial Comparison document.

89 4.3 Roles relevant to facial comparison include facial assessor, facial reviewer and  
90 facial examiner. Additional roles may include administrative duties, policy or  
91 case management. All relevant roles should be considered when developing a  
92 facial comparison training program.

93 4.4 Below is a list of the different roles in a facial comparison environment. These  
94 are not job titles, but instead describe tasks the individual may perform.  
95 Depending upon the organization of an agency one individual may perform  
96 multiple roles. This list is not exhaustive and other agency specific roles may  
97 exist.

98 4.4.1 **Facial Assessor:** Performs a quick comparison of image-to-image or  
99 image-to-person, typically with controlled images, carried out in  
100 screening and access control applications or field operations. Due to  
101 limitations such as time constraints, assessors perform the least rigorous  
102 of all of the facial comparison tasks. For example, a person at a port of  
103 entry or in the field using a mobile FR system to assist with an identity  
104 verification.

105 4.4.2 **Facial Reviewer:** Performs a comparison of image(s)-to-image(s) as their  
106 primary job function, often used in either investigative and operational  
107 leads or intelligence gathering applications.

108 4.4.3 **Facial Examiner:** performs a comparison of image(s)-to-image(s) using  
109 a rigorous morphological analysis, comparison, and evaluation of images

110 for the purpose of effecting a conclusion, often used in a forensic  
111 application.

112 4.4.4 **Manager:** Sets agency policies and/or makes budget decisions.

113 4.4.5 **Supervisor:** Supervises and/or directs personnel engaged in the use of  
114 facial comparison methods, tools, and/or technologies.

115 4.4.6 **Collector:** Obtains/captures source images to be used in facial  
116 comparisons.

117 4.4.7 **Technical reviewer:** Performs quality assurance review of the work  
118 product of facial comparison.

119 4.4.8 **System administrator:** Performs the system administration required to  
120 implement, maintain, and optimize the automated facial recognition  
121 program.

122 4.4.9 **Trainer:** Provides instruction in facial comparison methods, tools, and/or  
123 technologies. Designs and implements competency and proficiency  
124 testing. Designs and implements aptitude testing when validated  
125 aptitude testing is not available.

126 4.5 **Education Requirements:** In addition to an agency's own training and testing  
127 programs the following may be desirable for facial examiners.

128 4.5.1 **Facial Examiners:** Agencies should consider recruiting facial examiners  
129 with a minimum undergraduate degree or equivalent qualification,  
130 preferably in a relevant scientific or technical subject such as human

131 anatomy or imaging science, or, individuals with substantial relevant  
132 work experience.

133 **4.6 Categories of Training:** A facial comparison training program can be broadly  
134 defined as consisting of the following five categories. The specific content for  
135 each of these categories will be dependent upon the requirements of an  
136 individual agency, but a high degree of consistency should exist between  
137 different agencies.

138 4.6.1 Introductory overview: The comprehension of the basics of facial  
139 comparison.

140 4.6.2 Skills and abilities: The ability to use applicable facial comparison tools,  
141 methods, and technologies.

142 4.6.3 Knowledge of processes: The ability to select and apply the appropriate  
143 information, skills and techniques for a given examination, from receipt  
144 of evidence through to completion of the report and presentation at court  
145 when required.

146 4.6.4 Court preparation and presentation: The ability to prepare and review  
147 accurate and reliable facial comparison evidence and/or present reliable  
148 facial comparison testimony in court.

149 4.6.5 Instruction: The ability to instruct others in applicable areas of facial  
150 comparison processes.

151 4.7 The level of assessment for each of the above categories will be dependent  
152 upon an individual's role and type of task being performed. The levels of  
153 assessment for a facial comparison training program can be defined as follows:

154 4.7.1 Awareness: General acquaintance with the relevant major elements of a  
155 given method or technology to include specific capabilities and  
156 limitations.

157 4.7.2 Aptitude: The ability to undertake facial image comparisons and/or the  
158 ability to develop higher level facial image comparison skills.

159 4.7.3 Competency: Demonstration that an individual has acquired and  
160 demonstrated specialized knowledge, skills, and abilities necessary to  
161 conduct examinations in a discipline or category of testing prior to  
162 performing independent casework.

163 4.7.4 Proficiency: The ongoing evaluation and assessment of obtained  
164 competency, for example by proficiency testing (ref ASTM glossary  
165 2916).

## 166 **5. Minimum Training Recommendations**

167 5.1 Table 1 shows the level of assessment recommended for each role in the  
168 defined categories of training. This table should be considered the minimum  
169 requirements for a facial comparison training program.

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171 **Table 1 - Matrix of minimum training recommendations for roles being performed**172 **AW - Awareness**173 **AP - Aptitude**174 **CP - Competency and ongoing Proficiency**175 **N/A - Not Applicable**

	Aptitude Testing	Introductory Overview	Skills and Techniques	Knowledge of Processes	Court Presentation	Instruction
Manager	N/A	AW	AW	AW	AW	N/A
Supervisor	N/A	CP	AW	AW	AW	AW
Collector	N/A	AW	CP	CP	CP	N/A
Facial Assessor (non-FR user)	N/A	AW	AW	AW	AW	N/A
Facial Assessor (FR user)	N/A	CP	CP	CP	AW	N/A
Facial Reviewer	AP	CP	CP	CP	AW	N/A
Facial Examiner	AP	CP	CP	CP	CP	N/A
Technical Evaluator	AP	CP	CP	CP	CP	N/A
System Administrator	N/A	AW	AW	AW	N/A	N/A
Trainer	N/A	CP	CP	CP	CP	CP

176 **6. Keywords**

177 6.1 Training, Facial Identification, Facial Comparison, Proficiency Test

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