



## Facial Identification

### Proficiency Test No. 02-2023 Summary Report

Each digital test package contained the following: Twenty (20) pairs of digital facial images and instructions. Participants were asked to compare each set of paired images, articulate their analysis and report their findings based on a level of confidence in their answers based on a five-point scale (Strong Support for Common Source, Support for Common Source, Inconclusive, Support for Exclusion, Exclusion). Data was returned from thirty-five (35) participants and are compiled into the follow tables and graphs:

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In this report, Table 2 and Table 9 have been updated.

This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option on what technique or process the facial pairs are compared (agency protocols/procedures, training exercise, known or blind proficiency testing), the results compiled in the Summary Report are NOT intended to be an overview of the quality of the work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of the participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the facial identification discipline. Participant results are reported using a randomly assigned “participant number”. This number ensures the participants’ anonymity and will change with every testing cycle.



## Manufacturer's Information

Each test packet contained digital facial images that were paired for the expressed purpose of side-by-side comparisons. There was no predetermined number of same source/different source pairs. Photographs were obtained from either (1) known, living persons who signed a release allowing permission for use in proficiency testing or training purposes or (2) deceased persons (image use approved and released by authorizing family members).

COMPARISON SET PREPARATION: Images were provided utilizing various media (cell phone cameras, SLR camera, scanned prints and other image recording devices). Image quality and resolution varied from set to set to establish consistency with "real world" comparison circumstances, including some facial coverings.

VERIFICATION: The expected Common Source and Exclusion responses were reported by the predistribution examiners.

TEST PACKET DEVELOPMENT/DEPLOYMENT: Once verification was complete and comparison set preparation was finished, the test pairs were loaded on a web-based test site that was available only to the test participants and the Proficiency Test Providers. **Table 1** (below) lists the comparison sets by sex/race (M=Male, F=Female, W=White or European Descent, B=Black or African Descent), juvenile (J), and the true value of each pair.

Comparison Set Description	Result (Common Source/Exclusion)
1 (F/W)	Exclusion
2 (F/W)	Common Source
3 (F/W)	Exclusion
4 (M/W - J)	Exclusion
5 (F/W)	Common Source
6 (F/W)	Common Source
7 (F/W - J)	Common Source
8 (M/W)	Exclusion
9 (F/W)	Common Source
10 (M/W - J)	Exclusion
11 (F/B)	Exclusion
12 (F/W)	Exclusion
13 (M/B - J)	Common Source
14 (F/W)	Exclusion
15 (F/W)	Common Source
16 (M/W - J)	Common Source
17 (M/W)	Exclusion
18 (M/W)	Common Source
19 (F/W)	Exclusion
20 (M/B)	Common Source

**Table 1**



## Summary Comments

This test was designed to allow participants to assess their proficiency in the analysis of paired facial images to determine whether they represented the same source or a different source. The images were obtained from individuals with the expressed purposes of proficiency testing or training (see Manufacturer's Information for additional details). Of the twenty pairs, ten (10) pairs were Exclusions (different source) and ten (10) pairs were Same Source. Thirty-five (35) participants took part in the testing. Inconclusive responses were not counted against or toward the total comparison set results. Only erroneous assessments were included as part of the overall accuracy assessment.

Of the 35 responding participants, the following results were recorded in **Table 2** below:

Number of Participants	Percentage of Correct Responses
6	100%
1	95.00%
4	94.74%
2	94.44%
1	93.75%
1	93.33%
7	90.00%
3	89.47%
3	88.89%
1	88.24%
1	87.50%
2	85.00%
2	84.21%
1	75.00%
Total – 35	Total overall % - 91.30%

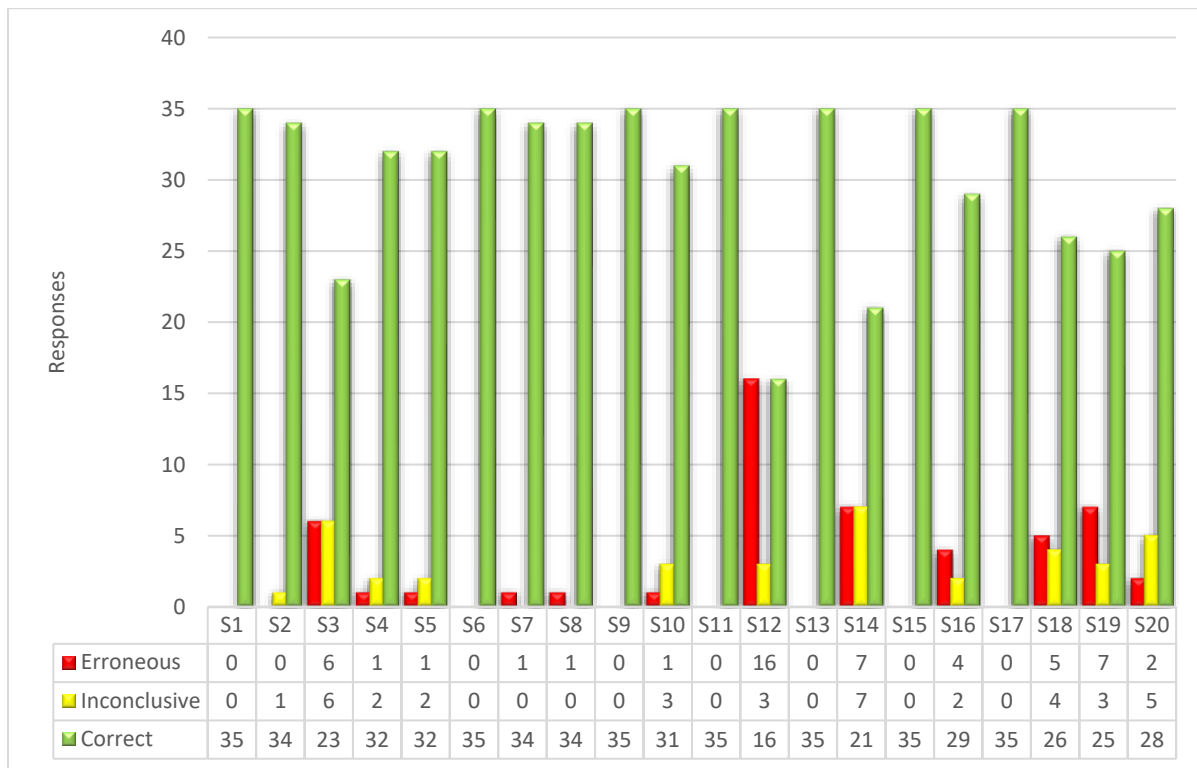
**Table 2**



The number of Correct, Inconclusive and Erroneous decisions by the 35 participants for each comparison set are shown in **Table 3** and **Figure 1** below:

Paired Set #	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	Totals
<b>Erroneous</b>	0	0	6	1	1	0	1	1	0	1	0	16	0	7	0	4	0	5	7	2	52
<b>Inconclusive</b>	0	1	6	2	2	0	0	0	0	3	0	3	0	7	0	2	0	4	3	5	38
<b>Correct</b>	35	34	23	32	32	35	34	34	35	31	35	16	35	21	35	29	35	26	25	28	610
																					700

**Table 3**



**Figure 1**



The number of opinions by pair and actual analysis offered by participants (Exclusion, Support for Exclusion, Inconclusive, Support for Common Source, Strong Support for Common Source) are listed in **Table 4** below:

Comparison Set	Exclusion	Support for Exclusion	Inconclusive	Support for Common Source	Strong Support for Common Source	Total
1	19	15	0	1	0	35
2	0	0	2	15	18	35
3	8	15	6	6	0	35
4	18	14	2	1	0	35
5	1	0	2	17	15	35
6	0	0	0	8	27	35
7	0	1	0	16	18	35
8	12	21	0	1	1	35
9	0	0	0	2	33	35
10	16	15	3	1	0	35
11	28	7	0	0	0	35
12	4	10	5	13	3	35
13	0	0	0	17	18	35
14	9	12	7	6	1	35
15	0	0	0	6	29	35
16	0	4	2	21	8	35
17	23	12	0	0	0	35
18	2	3	4	23	3	35
19	8	15	3	7	2	35
20	1	1	6	23	4	35

**Table 4**

**Numbers in red are incorrect answers**



The Response Summary is shown in **Table 5** below. It should be noted that “Inconclusive” responses are not counted against the total number of responses (e.g., in comparison set 4 below, there was one (1) Erroneous Response, 32 Correct Responses and two (2) Inconclusive Responses – the percentage correct would be 31 out of 32 or 96.67%)

Comparison Set	Erroneous Response	Correct Response	Inconclusive	Total Respondents	Percentage Correct
1	0	34	1	35	100.00%
2	0	33	2	35	100.00%
3	6	23	6	35	79.31%
4	1	32	2	35	96.97%
5	1	32	2	35	96.97%
6	0	35	0	35	100.00%
7	1	34	0	35	97.14%
8	2	33	0	35	94.29%
9	0	35	0	35	100.00%
10	1	31	3	35	96.88%
11	0	35	0	35	100.00%
12	16	14	5	35	46.67%
13	0	35	0	35	100.00%
14	7	21	7	35	75.00%
15	0	35	0	35	100.00%
16	4	29	2	35	87.88%
17	0	35	0	35	100.00%
18	5	26	4	35	83.87%
19	9	23	3	35	71.88%
20	2	27	6	35	93.10%
<b>Totals</b>	<b>55</b>	<b>602</b>	<b>43</b>	<b>700</b>	<b>91.63%</b>

**Table 5**



## Additional Comments

Of the twenty comparison sets, six (6) appeared to be the most challenging for many of the participants due to differences in pose, expression, or presence of a head covering. Those comparison sets and the results of the analysis are shown in **Table 6** below:

Comparison Set	Number Correct	Number Inconclusive	Number Erroneous
3	23	6	6
12	14	5	16
14	21	7	7
18	26	4	5
19	23	3	9
20	27	6	2

**Table 6**

Comparison set #12 proved to be extraordinarily difficult for a number of participants in this proficiency assessment. Circumstances that contributed to the challenge were significant obstruction of the face/head outline, hair, and chin/jawline of the candidate, poor image quality of the known and strong similarities in the eyes, mouth, and eyebrows. The PT preparers were confident that the correct decision could be made by focusing on the subtle differences in nose structure, eyes, and facial lines.



The facial features that were used by all participants were documented by the PT reviewer(s) in **Tables 7 and 8** below. The number in each cell represents an instance when a feature was cited.

Comparison #	Skin	Face/Head Outline	Face/Head Composition	Hair	Forehead	Eyebrows	Eyes	Cheeks	Nose
1	21	23	17	25	32	29	30	25	32
2	21	20	17	27	34	29	29	17	25
3	21	24	18	25	19	27	25	24	34
4	19	20	16	24	17	33	30	20	31
5	19	25	16	25	19	32	25	23	34
6	20	20	17	27	31	28	31	24	35
7	21	22	18	23	19	34	35	29	35
8	19	18	15	28	34	27	33	17	23
9	22	20	18	29	28	34	34	23	32
10	23	24	17	24	19	25	28	19	31
11	15	24	18	26	17	18	27	29	17
12	19	19	15	19	19	24	29	26	32
13	21	22	19	21	27	34	33	25	33
14	21	21	20	29	25	27	34	20	32
15	12	16	17	21	26	34	35	18	31
16	19	21	17	23	18	28	28	20	28
17	19	21	18	28	30	28	32	22	34
18	19	20	19	24	32	23	28	22	34
19	22	20	18	19	19	32	32	21	33
20	21	20	20	32	26	32	26	18	31

Table 7

Comparison #	Ears	Mouth	Chin/Jawline	Neck	Facial Hair	Facial Lines	Scars	Facial Marks	Alterations
1	21	25	23	28	19	32	19	31	15
2	21	18	18	18	16	33	19	22	17
3	26	29	24	19	17	26	17	26	16
4	35	30	25	18	17	22	17	20	15
5	19	28	26	29	17	26	17	33	15
6	18	34	31	25	17	35	18	26	15
7	31	30	33	17	17	31	17	33	15
8	33	18	17	17	17	34	17	19	15
9	20	26	27	26	17	31	22	33	16
10	31	31	28	20	17	21	17	22	15
11	34	29	34	31	33	24	17	22	19
12	19	30	25	17	17	29	17	18	15
13	32	32	26	17	17	32	17	18	14
14	21	25	30	18	17	32	17	20	15
15	18	16	16	21	16	28	16	34	14
16	32	32	20	18	1	27	17	20	15
17	35	31	20	19	25	29	21	19	15
18	29	26	23	16	30	32	16	16	14
19	18	33	24	20	17	33	17	19	15
20	35	28	27	17	25	25	17	19	16

Table 8





In Table 9, “Score (C/I/E)” indicates number **C**orrect, **I**nconclusive and **E**rroneous. The numbers in the “Inconclusive” and “Erroneous” columns are the Comparison Set numbers. Accuracy is defined as the number of correct vs. erroneous (inconclusive responses are not counted against the total).

Respondent	Score		Correct	Inconclusive	Inconclusive	Erroneous	Erroneous	Accuracy
	(C/I/E)							
001	15/0/5		15		0	5,8,12,19,20	5	75.00%
002	16/2/2		16	18,20	2	3,12	2	88.89%
003	17/0/3		17		0	12,14,18	3	85.00%
004	18/1/1		18	18	1	12	1	94.74%
005	18/0/2		18		0	18,19	2	90.00%
006	14/5/1		14	3,10,12,14,20	5	19	1	93.33%
007	14/4/2		14	3,10,12,19	4	8,16	2	87.50%
008	19/0/1		19		0	16	1	95.00%
009	17/1/2		17	3	1	14,19	2	89.47%
010	18/1/1		18	18	1	12	1	94.74%
011	17/1/2		17	5	1	3,18	2	89.47%
012	18/0/2		18		0	12,14	2	90.00%
013	18/0/2		18		0	3,12	2	90.00%
014	18/0/2		18		0	3,12	2	90.00%
015	15/4/1		15	4,5,18,20	4	19	1	93.75%
016	16/2/2		16	3,14	2	12,19	2	88.89%
017	18/0/2		18		0	12,14	2	90.00%
018	18/2/0		18	10,16	2		0	100.00%
019	17/2/1		18	14,16	2	19	1	94.74%
020	18/0/2		18		0	3,18	2	90.00%
021	20/0/0		20		0		0	100.00%
022	17/0/3		17		0	12,14,19	3	85.00%
023	17/2/1		17	3,4	2	12	1	94.44%
024	18/2/0		18	2,20	2		0	100.00%
025	16/2/2		16	12,19	2	4,10	2	88.89%
026	19/1/0		19	12	1		0	100.00%
027	16/1/3		16	14	1	1,16,19	3	84.21%
028	20/0/0		20		0		0	100.00%
029	16/1/3		16	2	1	16,18,20	3	84.21%
030	17/2/1		17	14,19	2	12	1	94.44%
031	18/0/2		18		0	12,14	2	90.00%
032	18/1/1		18	14	1	12	1	94.74%
033	16/2/2		17	14,20	1	3,12	2	89.47%
034	15/3/2		15	3,12,20	3	7,14	2	88.24%
035	20/0/0		20		0		0	100.00%
Overall accuracy								91.30%

Table 9

End of Report