



Facial Identification

Proficiency Test No. 01-2021 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 forty-two (42) participants and are compiled into the follow tables and graphs:

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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 comparison. There was no predetermined number of same source/different source pairs. Photographs were obtained from known, living persons who signed a release allowing permission for use in proficiency testing or training purposes or of 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.

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 image pairs (a probe and an unknown) by sex/race (M=Male, F=Female, W=White or European Descent, B=Black or African Descent) and the true value of each pair.

Image Pair Description	Result (Common Source/Exclusion)
1 (M/W)	Common Source
2 (F/W)	Exclusion
3 (M/W)	Exclusion
4 (F/W)	Common Source
5 (F/W)	Exclusion
6 (F/B)	Exclusion
7 (M/W)	Exclusion
8 (M/W)	Common Source
9 (M/W)	Exclusion
10 (F/W)	Common Source
11 (F/W)	Common Source
12 (F/W)	Exclusion
13 (M/W)	Common Source
14 (F/W)	Exclusion
15 (F/W)	Exclusion
16 (F/W)	Common Source
17 (M/W)	Common Source
18 (M/W)	Exclusion
19 (M/W)	Exclusion
20 (M/W)	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, eleven (11) pairs were Exclusions (not the same source) and nine (9) pairs were Same Source. Forty-two (42) participants took part in the testing. Inconclusive responses were not counted against or toward the total comparison results. Only erroneous assessments were included as part of the overall accuracy assessment.

Of the 42 responding participants, the following results were recorded in **Table 2** below:

Number of Participants	Percentage of Correct Responses
12	100%
6	95.00%
4	94.73%
5	94.11%
1	92.31%
3	90.00%
1	89.47%
2	88.89%
1	88.23%
1	81.25%
2	80.00%
2	75.00%
1	70.58%
1	64.71%
Total – 42	Total overall % - 91.15%

Table 2



The number of Correct, Inconclusive and Erroneous decisions by the 42 participants for each paired set are shown in **Table 3** and the **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
Erroneous	2	3	5	0	5	0	1	2	5	1	3	2	0	1	10	2	12	0	8	0	62
Inconclusive	0	1	4	1	4	0	0	17	1	1	2	3	1	0	6	0	4	3	15	0	63
Correct	40	38	33	41	33	42	41	23	36	40	37	37	41	41	26	40	26	39	19	42	715
																					840

Table 3

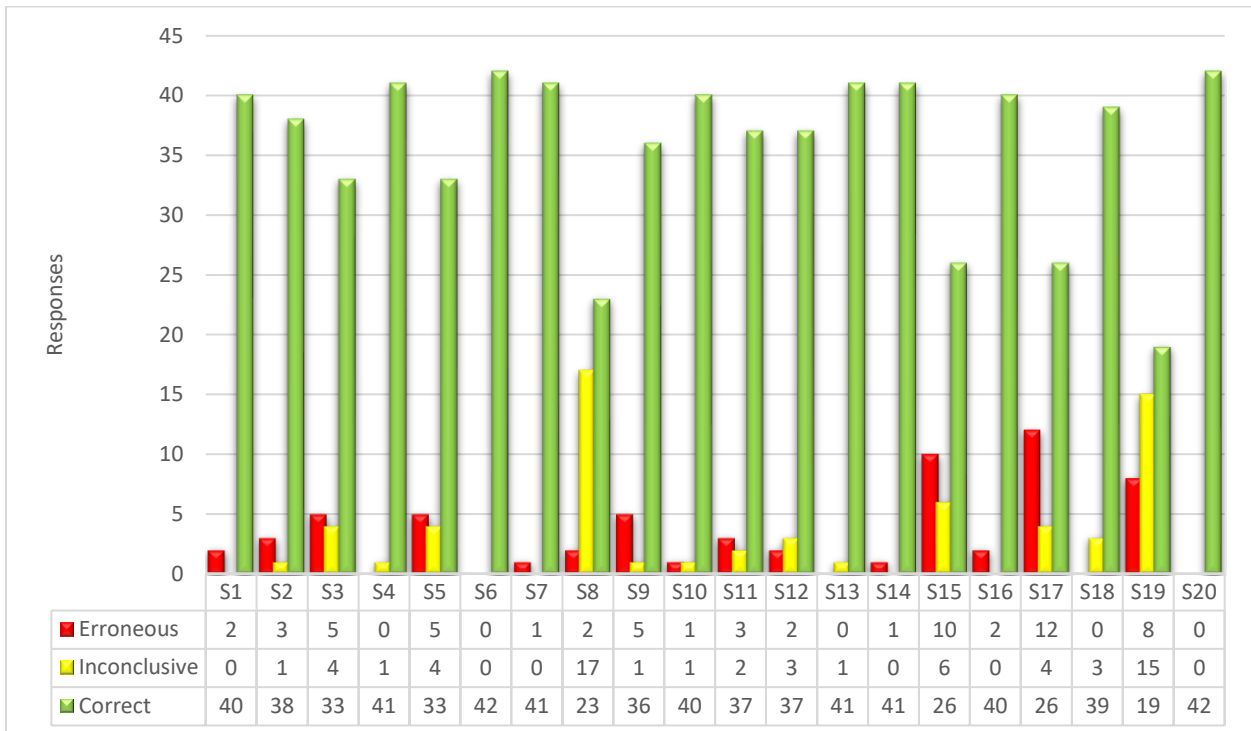


Figure 1



The number of conclusions 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 #	Exclusion	Support for Exclusion	Inconclusive	Support for Common Source	Strong Support for Common Support	total
1	0	2	0	24	16	42
2	27	11	1	3	0	42
3	17	16	4	4	1	42
4	0	0	1	10	31	42
5	18	15	4	5	0	42
6	30	12	0	0	0	42
7	37	4	0	0	1	42
8	1	1	17	22	1	42
9	18	18	1	5	0	42
10	0	1	1	17	23	42
11	1	2	2	17	20	42
12	22	15	3	2	0	42
13	0	0	1	11	30	42
14	30	11	0	1	0	42
15	10	16	6	9	1	42
16	0	2	0	20	20	42
17	4	8	4	21	5	42
18	24	15	3	0	0	42
19	5	14	15	6	2	42
20	0	1	0	8	33	42

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 of responses (e.g. in Comparison Set 2 below, there were three (3) Erroneous Responses, 38 Correct Responses and one (1) Inconclusive Response – the percentage correct would be 38 out of 41 or 92.68%)

Comparison Set	Erroneous Response	Correct Response	Inconclusive	total respondents	percentage correct
1	2	40	0	42	95.23%
2	3	38	1	42	92.68%
3	5	33	4	42	86.84%
4	0	41	1	42	100.00%
5	5	33	4	42	86.84%
6	0	42	0	42	100.00%
7	1	41	0	42	97.61%
8	2	23	17	42	92.00%
9	5	36	1	42	87.80%
10	1	40	1	42	95.23%
11	3	37	2	42	92.50%
12	2	37	3	42	94.87%
13	0	41	1	42	97.61%
14	1	41	0	42	97.61%
15	10	26	6	42	72.22%
16	2	40	0	42	95.23%
17	12	26	4	42	68.42%
18	0	39	3	42	100.00%
19	8	19	15	42	70.37%
20	0	42	0	42	100.00%
Totals	62	715	63	840	91.15%

Table 5



Additional Comments

Of the twenty paired sets, four (4) appeared to be the most challenging for many of the participants. Those paired sets and the results of the analysis is shown in **Table 6** below:

Paired Set Number	Number Correct	Number Inconclusive	Number Erroneous
8	23	17	2
15	26	6	10
17	26	4	12
19	19	15	8

Table 6



The facial features that were used by all participants were documented by the PT reviewer(s) in the **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	16	17	17	7	16	38	37	14	39
2	17	18	13	13	17	38	38	19	36
3	11	24	11	20	30	28	35	18	37
4	16	17	14	25	26	22	31	12	35
5	24	21	11	14	18	29	36	14	33
6	18	18	12	14	29	30	39	15	32
7	16	18	12	17	20	30	37	12	39
8	13	19	15	20	17	38	30	14	35
9	17	17	14	26	29	37	36	11	29
10	17	21	16	27	26	36	32	22	40
11	15	18	18	18	19	28	39	17	39
12	20	23	17	17	13	23	31	17	42
13	20	18	16	20	25	37	31	24	29
14	20	14	11	25	25	36	35	12	37
15	13	25	14	22	24	35	38	21	31
16	14	23	15	21	25	37	38	23	35
17	14	21	11	23	22	13	16	15	39
18	13	19	11	12	19	39	38	17	31
19	12	27	14	17	25	21	30	14	35
20	17	32	16	19	24	30	38	16	36

Table 7

Comparison #	Ears	Mouth	Chin/Jawline	Neck	Facial Hair	Facial Lines	Scars	Facial Marks	Alterations
1	29	39	17	7	24	32	5	9	6
2	9	40	21	8	6	26	5	11	5
3	27	28	23	10	7	34	5	10	5
4	40	28	25	10	5	40	5	26	6
5	14	38	22	15	5	35	5	18	11
6	20	41	27	12	5	34	5	20	7
7	38	30	15	22	17	32	7	14	4
8	36	28	30	9	7	33	7	9	4
9	29	37	23	10	11	27	8	18	5
10	15	38	35	9	6	36	7	8	7
11	11	40	24	20	6	34	8	34	6
12	12	37	28	17	5	37	7	31	5
13	39	24	19	11	23	28	8	39	6
14	23	29	36	16	9	27	6	31	6
15	16	38	29	6	6	33	6	12	5
16	21	37	29	12	6	38	7	8	7
17	40	38	18	13	25	32	6	20	5
18	12	32	26	23	9	31	7	33	5
19	40	31	26	13	13	30	9	16	5
20	38	31	12	9	33	35	6	26	5

Table 8



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

Respondent	Score (C/I/E)	Inconclusive	Erroneous	Accuracy
001	15/0/5		1,7,15,16,17	75.00%
002	19/0/1		19	95.00%
003	18/0/2		10,17	90.00%
004	15/3/2	4,8,15	1,3	88.23%
005	14/6/0	5,8,10,15,18, 19		100.00%
006	20/0/0			100.00%
007	17/3/0	3,8,19		100.00%
008	17/2/1	8,15	19	94.11%
009	17/3/0	3,15,19		100.00%
010	15/0/5		3,9,14,15,19	75.00%
011	17/2/1	8,19	15	94.11%
012	16/0/4		8,9,11,17	80.00%
013	17/2/1	5,8	17	94.11%
014	18/0/2		17,19	90.00%
015	18/2/0	8,19		100.00%
016	18/2/0	8,19		100.00%
017	17/1/2	19	5,16	89.47%
018	12/3/5	8,18,19	2,3,5,12,15	70.58%
019	18/1/1	3	17	94.73%
020	16/2/2	8,18	2,17	88.89%
021	19/0/1		19	95.00%
022	19/0/1		8	95.00%
023	20/0/0			100.00%
024	18/2/0	5,19		100.00%
025	18/0/2		5,17	90.00%
026	16/3/1	12,17,19	15	94.11%
027	18/1/1	8	19	94.73%
028	16/0/4		5,11,15,19	80.00%
029	19/1/0	19		100.00%
030	18/1/1	12	17	94.73%
031	18/1/1	8	15	94.73%
032	19/0/1		11	95.00%
033	20/0/0			100.00%
034	16/3/1	8,9,15	17	94.11%
035	17/3/0	8,17,19		100.00%
036	13/4/3	8,11,12,19	9,15,17	81.25%
037	19/0/1		19	95.00%
038	19/0/1		3	95.00%
039	12/7/1	3,5,8,13,15, 17,19	9	92.31%
040	20/0/0			100.00%
041	11/3/6	8,17,19	2,3,5,9,12,15	64.71%
042	16/2/2	2,11	15,17	88.89%
Overall accuracy				91.15%

Table 9