

IA1: Handwriting and Hand Printing

I. INTRODUCTION

It is a fundamental principle of handwriting that no two people write exactly alike. Because of this, Handwriting Identification is based upon the examination and comparison of personal writing characteristics found in a individuals writing.

These personal writing characteristics begin to appear in our writing when we first learn to write, based on our own individual level of skill and coordination. The beginning writer is first taught to draw or copy the letter formations from a model, like that found in many elementary classrooms above the blackboard. As a beginning writer our concentration is directed solely to the act of drawing the letters. Through practice and repetition the writing process transforms from a process of imitation into an unconscious system of personal writing characteristics. Once these characteristics are developed, we no longer have to concentrate on the movement of the pen, the hand moves automatically guided by the habits that have been formed.

It is also a principle of handwriting identification that no one person can write precisely the same way twice. Because people lack machine-like precision, there will always be some variation in a person's handwriting. Variation is a natural and expected feature in a person's handwriting and it accounts for the minor differences that occur when we write something, such as our own signature, more than one time.

Two writings can be identified as having been written by the same person, if they contain a sufficient amount of similar individual writing characteristics, with no basic differences.

II. INSTRUMENTATION

- A. Light sources of sufficient intensity to allow fine detail to be distinguished (See Appendix VI).
- B. Optical instruments capable of sufficient magnification to allow fine detail to be distinguished (See Appendix VI).

III. MINIMUM STANDARDS & CONTROLS

Refer to Appendix I.

IV. EXAMINATION PROCEDURE

While all of these steps should be performed, Steps A through J need not be performed in the order given.

- A. Determine whether the examination is a comparison of questioned to known writing or a comparison of questioned writing to questioned writing.
- B. Determine whether the questioned writing is original writing. If it is original writing go to C. If it is not original writing request the original. If the original questioned writing is submitted, go to C. If the original is not submitted, continue.

Note-1: It is self-evident that examination of the original is preferable, and it is assumed that

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efforts will be made to examine the original. Should the original become available after completion of the examination of the non-original, the original should be examined per this Guide and any conclusion(s) based on the examination of non-original writing should be reevaluated and, if appropriate, modified accordingly.

1. Determine whether the non-original questioned writing has been reproduced with sufficient clarity for comparison purposes.
 - a. If it has been reproduced with sufficient clarity for comparison, go to C.
 - b. If it has not been reproduced with sufficient clarity, go to B2, or request the original or a copy of sufficient clarity for comparison.
 - c. If the original questioned writing is submitted, go to C.
 - d. If another copy is submitted go to B1.
 2. If the original or a copy of sufficient clarity for comparison is not submitted, discontinue these procedures and report accordingly.
- C. Determine whether the questioned writing appears to be distorted. If it appears to be distorted, continue. If it does not appear to be distorted, go to D when comparison is of questioned to known writing; or go to G when comparison is of exclusively questioned writing.
1. Determine whether it is possible to establish that the apparently distorted writing is natural writing.
 - a. If it is not possible to establish whether the apparently distorted writing is natural writing, go to C2.
 - b. If it is natural writing, go to D when comparison is of questioned writing to known writing; or go to G when comparison is of exclusively questioned writing.
 - c. If it is not natural writing, continue.
 2. Determine whether the apparently distorted writing is suitable for comparison (i.e., provides a sufficient basis for comparison). If it is not suitable for comparison, discontinue these procedures and report accordingly. If it is suitable for comparison, go to D when comparison is of questioned writing to known writing; or go to G when comparison is of exclusively questioned writing.
- D. Determine whether or not the known writing is original writing. If it is original writing, go to E. If it is not original writing, request the original. If the original known writing is submitted, go to E. If the original is not submitted, continue. Note: see Note-1 at B.
1. Determine whether the non-original known writing has been reproduced with sufficient clarity for comparison purposes.
 - a. If it has been reproduced with sufficient clarity for comparison, go to E.
 - b. If it has not been reproduced with sufficient clarity, go to D2, or request the original, or copies of sufficient clarity for comparison, or additional known writing.
 - c. If the original or original additional known writing is submitted go to E.
 - d. If another copy is submitted, whether of previously submitted known writing or of additional known writing, go to D1.
 2. If the original or a copy of sufficient clarity for comparison, or appropriate additional known writing is not submitted, discontinue these procedures and report accordingly.
- E. Determine whether or not the known writing appears to be distorted. If it does not appear to be

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distorted, go to F. If it appears to be distorted, continue.

1. Determine whether it is possible to establish that the apparently distorted writing is natural writing.
 - a. If it is not possible to establish whether the apparently distorted writing is natural writing, go to E3.
 - b. If it is natural writing, go to F.
 - c. If it is not natural writing, continue.
 2. Determine whether the apparently distorted writing is suitable for comparison (i.e., provides a sufficient basis for comparison). If it is, go to F. If it is not, continue.
 3. Determine whether additional known writing would be of assistance.
 - a. If additional known writing would not be of assistance, discontinue these procedures and report accordingly.
 - b. If additional known writing would be of assistance, request additional known writing.
 - c. If additional known writing is received, go to D.
 - d. If additional known writing is not received, discontinue these procedures and report accordingly.
- F. Evaluate the known writing for the following:
1. Type of writing. If there is more than one type of writing, separate the known writing into subsets of single types of writing.
 2. Internal consistency. If there are unresolved inconsistencies within any of the subsets created in F1 (e.g., suggestive of multiple writers), contact the submitter for authentication. If any inconsistencies are not resolved to the examiner's satisfaction, discontinue these procedures for the affected subset(s), and report accordingly.
 3. Range of variation of the writing for each subset of the known writing created in F1.
 4. Presence or absence of individualizing characteristics.
- G. Evaluate the questioned writing for the following:
1. Type of writing. If there is more than one type of writing within the questioned writing, separate the questioned writing into subsets of single types of writing.
 2. Internal consistency. If there are inconsistencies within any one of the subsets created in G1 (e.g., suggestive of multiple writers), divide the subset(s) into sub-subsets, each one which is consistent.
 3. Range of variation of the writing for each subset or sub-subset of the questioned writing created in G1 and G2.
 4. Presence or absence of individualizing characteristics.
- H. Evaluate the comparability of the bodies of writing (questioned writing and known writing, or exclusively questioned writing).
1. If the bodies of writing are not comparable, discontinue comparison and request comparable known writing, if appropriate.
 - a. If comparable known writing is made available, return to D.
 - b. If comparable known writing is not made available, discontinue these procedures and report accordingly.
- I. Conduct a side-by-side comparison of comparable portions of the bodies of writing (questioned

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writing and known writing, or exclusively questioned writing).

1. Determine whether or not there are dissimilarities, absent characters, and similarities.
2. Evaluate their significance individually and in combination.
3. Determine if there is a sufficient quantity of writing (questioned writing, or known writing, or both). If writing (questioned writing, or known writing, or both) is not sufficient in quantity for an elimination or an identification, continue the comparison to the extent possible. When appropriate, request more known writing. If more known writing is made available, return to D.

- J. Reach a conclusion (limiting it to the comparable portions of the bodies of writing when appropriate).

Note – 2: It is futile to merely count characteristics, or to define in advance how many occurrences of a particular characteristic would suffice for a specific decision. Differences in amount of writing, characters present, and writing styles make such numerical methods generally ineffectual. One should therefore assess terms such as “sufficient,” “substantial,” “significant,” “limited quantity,” “few,” and “some” in the context of the quantity, quality, and content of the available samples.

1. For comparison of questioned writing to known writing, reach a conclusion according to the criteria set forth in V.
2. For comparison of exclusively questioned handwritten items, reach a conclusion according to the criteria set forth in VI.

V. Reporting Conclusions for Comparison of Questioned Writing to Known Writing

To reach of the following conclusions, the listed criteria shall be met:

- A. Identification (definite conclusion of identity)

1. The range of variation exhibited in the questioned writing and in the known writing contains substantial significant similarities;
2. there are no significant dissimilarities; and
3. no limitations associated with absent characters, dissimilarities, or quantity of writing are present.

- B. Strong probability (highly probable, very probable)

1. The range of variation exhibited in the questioned writing and in the known writing contains substantial significant similarities;
2. there are no significant dissimilarities; and
3. limitations associated with absent characters, dissimilarities, or quantity of writing are present.

- C. Probable

1. The range of variation exhibited in the questioned writing and in the known writing contains some significant similarities;
2. there are no significant dissimilarities; and
3. limitations associated with absent characters, dissimilarities, individualizing characteristics, or quantity of writing may be present.

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- D. Indications (evidence to suggest)
 - 1. The range of variation exhibited in the questioned writing and in the known writing contains few significant similarities;
 - 2. there are no significant dissimilarities; and
 - 3. limitations associated with absent characters, dissimilarities, individualizing characteristics, or quantity of writing may be present.

- E. No conclusion (totally inconclusive, indeterminable)
 - 1. The range of variation exhibited in the questioned writing and in the known writing contains insufficient significant similarities and insufficient significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing may be present.
 - 3. There may be similarities, or dissimilarities, or both

- F. Indications did not (evidence to suggest did not)
 - 1. The range of variation exhibited in the questioned writing and in the known writing contains few significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing may be present.
 - 3. There may be similarities.

- G. Probably did not
 - 1. The range of variation exhibited in the questioned writing and in the known writing contains some significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing may be present.
 - 3. There may be similarities.

- H. Strong probability did not (highly probable did not, very probable did not)
 - 1. The range of variation exhibited in the questioned writing and in the known writing contains substantial significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing are present.
 - 3. There may be similarities.

- I. Elimination
 - 1. The range of variation exhibited in the questioned writing and in the known writing contains substantial significant dissimilarities; and
 - 2. no limitations associated with absent characters, individualizing characteristics, or quantity of writing are present.
 - 3. There may be absent characters.
 - 4. There may be similarities.

VI. Reporting Conclusions for Comparison of Exclusively Questioned Handwritten Items

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The following criteria shall be met in order to reach the appropriate conclusion:

- A. Identification of one writer (definite conclusion of identity)
 - 1. The range of variation exhibited in the bodies of writing contains substantial significant similarities;
 - 2. there are no significant dissimilarities; and
 - 3. no limitations associated with absent characters, dissimilarities, or quantity of writing are present.
- B. Strong probability of one writer (highly probable one writer, very probable one writer)
 - 1. The range of variation exhibited in the bodies of writing contains substantial significant similarities;
 - 2. there are no significant dissimilarities; and
 - 3. limitations associated with absent characters, dissimilarities, or quantity of writing are present.
- C. Probable one writer
 - 1. The range of variation exhibited in the bodies of writing contains some significant similarities;
 - 2. there are no significant dissimilarities; and
 - 3. limitations associated with absent characters, dissimilarities, individualizing characteristics, or quantity of writing may be present.
- D. Indications of one writer (evidence to suggest one writer)
 - 1. The range of variation exhibited in the bodies of writing contains few significant similarities;
 - 2. there are no significant dissimilarities; and
 - 3. limitations associated with absent characters, dissimilarities, individualizing characteristics, or quantity of writing may be present.
- E. No conclusion (totally inconclusive, indeterminable)
 - 1. The range of variation exhibited in the bodies of writing contains insufficient significant similarities and insufficient significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing may be present.
 - 3. There may be similarities, or dissimilarities, or both.
- F. Indications more than one writer (evidence to suggest more than one writer)
 - 1. The range of variation exhibited in the bodies of writing contains few significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing may be present.
 - 3. There may be similarities.
- G. Probably more than one writer
 - 1. The range of variation exhibited in the bodies of writing contains some significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of

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- writing may be present.
- 3. There may be similarities.
- H. Strong probability of more than one writer (highly probable more than one writer, very probable more than one writer)
 - 1. The range of variation exhibited in the bodies of writing contains substantial significant dissimilarities; and
 - 2. limitations associated with absent characters, individualizing characteristics, or quantity of writing may be present.
 - 3. There may similarities.
- I. Elimination of one writer (definite conclusion of more than one writer)
 - 1. The range of variation exhibited in the bodies of writing contains substantial significant dissimilarities; and
 - 2. no limitations associated with absent characters, individualizing characteristics, or quantity of writing are present.
 - 3. There may be absent characters.
 - 4. There may be similarities.

VII. Reporting Terminology

See Appendix II.

REFERENCES

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