



Centre of Forensic Sciences Investigators & Submitters Technical Information Sheets

Handwriting Information

Introduction

Forensic handwriting examination involves the examination and comparison of handwriting and signatures and often includes magnification with a hand lens and/or stereomicroscope.

Principle of Handwriting Identification

Two writings are the product of one person if the similarities, taken in combination, are sufficiently individual and there are no fundamental differences. The identification of signatures constitutes a special branch of handwriting identification in which letter design is considered in conjunction with the factors related to the execution of the signature. It is the combination of writing quality and form that identifies a signature.

Examinations

Handwriting examinations include the following steps:

- The questioned and known items are examined to determine/assess their suitability for comparison (i.e. physical condition, comparable letter forms)
- Assessment of the naturalness or distorted appearance of the questioned and/or known writing
- A side-by-side comparison of known and questioned writings is conducted, noting any similarities and differences in characteristics
- A conclusion is reached based on an assessment of the significance of similarities and differences

Interpretation

Limitations/Factors

- Individuality of the writing
- Quantity of comparable writing
- Quality/condition of the items on submission (i.e. non-original documents, fingerprinted documents)
- Conditions under which the writing was executed

Significance of Conclusions

- Definitive findings can be made in handwriting examinations provided sufficient, comparable questioned material and known samples are available
- It is often possible to determine whether a signature is a simulation but usually not possible to determine who simulated it

Range of Conclusions

The range of conclusions expressed by the Document Section at the Centre of Forensic Sciences is normally:

- a. Identification or Elimination
- b. Probable Identification or Elimination
- c. Unable to Determine/ Unable to Identify or Eliminate

Meanings of Conclusions

IDENTIFICATION:

An identification means the combination of similarities points strongly towards two or more handwritten items having been written by the same person. There are no fundamental differences to suggest another writer. Identifications are made within the limits of practical certainty¹,

¹ **practical certainty** - Since it is not possible to collect and examine samples of everyone's handwriting it is not possible to make an identification with absolute certainty. However, all scientific research to date and the continuous inability to disprove the principle that no two people share the same combination of handwriting habits have demonstrated that even without a numerical threshold, handwriting examiners can reliably make identifications.

PROBABLE IDENTIFICATION:

This is a qualified conclusion in which the combination of similarities points strongly towards two or more handwritten items having been written by the same person. There are no fundamental differences to suggest another writer; however, there were limitation(s) in the examination.

ELIMINATION:

Elimination means that a known writer did not write the questioned writing.

PROBABLE ELIMINATION:

This is a qualified conclusion in which comparison of the questioned to the known writings revealed some differences. These differences may not be fundamental, but they do point strongly toward two or more handwritten items having been written by different persons. This conclusion means the Forensic Document Examiner cannot preclude the slight or theoretical possibility that the two items were written by the same person.

UNABLE TO DETERMINE:

An "unable to determine" or "unable to identify or eliminate" conclusion means it cannot be concluded whether or not the known writer wrote the questioned items.

Glossary

characteristics / features

- properties of handwriting, such as: letterform/design, relative sizes and heights of letters, line quality, slope, arrangement, spacing, writing style, and skill level

difference

- a characteristic/feature not in common between the questioned and known writing

disguised writing

- the writing of an individual who is deliberately altering the appearance of the writing by altering their usual writing habits in an attempt to conceal identity

fluency

- that quality of writing which reflects freedom of movement

fundamental difference

- a difference in some natural feature that is indicative of a person's writing habit and whose presence cannot be reasonably explained

habit

- a repeated element or detail that may serve to individualize writing

individual

- a characteristic or a combination of characteristics that distinguish(es) one person or thing from another

line quality

- the appearance of the written stroke caused by the basic movements and the manner of manipulating the writing instrument
- results from the combination of such factors as skill of the writer, writing fluency, fluctuations in pen pressure and smoothness of movement which are manifested by the presence/absence of features such as pen-lifts, hesitations, tremor, blunt or tapered beginning and/or ending strokes, abrupt directional changes, starts and stops

natural variation

- variation in handwriting features found between repeated specimens of an individual's natural handwriting

significant similarity

- a feature that is sufficiently individual to serve as a fundamental point of identification

similarity

- a characteristic/feature in common between the questioned and known writing

simulation/simulated signature

- a signature that was executed either by free-hand copying with or without the aid of a genuine model signature or by directly tracing the outline of a genuine signature