

COMPARISON STUDY OF FULL AND INITIAL SIGNATURE OF SAME INDIVIDUAL BY HANDWRITING CHARACTERISTIC

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ABSTRACT

The following Project is about the “Comparison between the full and initial signature of the same individual by handwriting characteristic.” Signature is the act of putting one’s name to attest its validity. Signature can be done as full name and it can also be the initial of name or surname initial. Full signatures are done in official documents mainly to have definite authenticity so that there would be no doubt about the name. Initial signatures are sometimes elaborately embellished, or hastily scrawled such that the letter forms they are expected to contain are unrecognizable. It is not uncommon to find that initials are underscored and underscores may not be the practice of the individual when executing a signature. In this project, from 20 individuals (10 males and 10 females) both initial and full signatures were taken and compared by handwriting characteristic of the same individual to find the similarities and dissimilarities between both signatures.

INTRODUCTION

A signature may be written by hand, printed, stamped, typewritten, engraved, photographed .The signature appears to have been used as a means of authentication since the sixteenth century. A signature is a combination of a rather limited number of letters or symbols. Because of its frequent use, it comes with almost all individuals' automatic habitual writing. With time and usage, a signature can become highly individualized, often in a style quite distinct from that of the writer’s other handwriting. Each signature varies to some degree from a master pattern and from other specimens of his or her signature. For the vast majority of individuals, signing one’s name is a habitual act .A few people use their name written in block capitals as their signatures but normally cursive writing is used. Signature whether it is the whole name, the first name and other initials or just initials and the surname. The initials can be joined to each other or to the surname or separated, and the whole may have an underlining of varying complexity. Many writers, especially those who are called upon to initial documents on a regular basis, develop a personal manner of writing their initials, sometimes significantly different from their signatures. Initials are sometimes very difficult to locate, but are essential when the writer has developed an unusual manner of initialling. The

identification of signatures constitutes a specialized branch of handwriting examination. Handwriting is an acquired skill and clearly one that is a complex perceptual-motor task, sometimes referred to as a neuromuscular task.

Signature can be examined by handwriting characteristics. Handwriting characteristics are mainly of two types:

(a) Class characteristic

(b) Individual characteristic

CLASS CHARACTERISTICS

Class characteristics are those aspects, elements, or qualities of writing that situate a person within a group of writers, or that give a written communication a group identity. Class characteristic includes following points:

1. **Slant or Slope** - It is the angle or inclination of the axes of letters relative to the perpendicular to the baseline of the writing.
2. **Spacing** - There are several aspects of spacing within writing that become habitual with the individual and of value in the identification process.
3. **Alignment** - This concerns the relation of successive letters of a word, signature, or line of writing to an actual or imaginary baseline.
4. **Line quality** - Line quality is the degree of regularity (i.e., smoothness and/or gradation) to the written stroke as may be judged from the consistency of its nature and of its path in a prescribed direction. It varies from smooth and controlled to tremulous and erratic.
5. **Writing Movement** - Writing movement refers to the various patterns of motion of the writing instrument, but not necessarily the dominant pattern.
6. **Speed** - Writing speed cannot be measured precisely from the finished handwriting but can be judged from quality of the strokes or it can be interpreted in broad terms slow, moderate or rapid.
7. **Rhythm** - rhythm is indicated by the flow of writings, correct line quality and punctuation and proportionate formation of letters and figures.

INDIVIDUAL CHARACTERISTICS

Individual characteristics are defined as those discriminating elements that serve to differentiate between members within any or all groups. Individual characteristic includes points:

1. Continuous writing or movement interrupted at intervals by either stops or actual pen lifts
 2. The rhythmic or jerky pattern of writing
 3. The shading and pen emphasis on particular strokes, as well as the overall writing pressure
 4. The position of the pen
 5. The speed of execution.
1. The smoothly rounded, sharply curving or elliptical, or angular connecting strokes between letters.
 2. The starting of the initial writing movement before or after the pen makes contact with the paper and the corresponding condition at the termination of the word or at interruption within words.
 3. Habitual re-touching of specific letters.

METHODOLOGY

The most important consideration is that there must be a sufficient amount of signatures for the study. There is no standard amount of signatures that will suffice, but some examiners believe that 10 – 20 samples should be sufficient. A clean white bond sheet in a rectangular fashion is used to take samples from each individual. Both initial and full signature in this project, 20 samples were taken from 20 subjects. The subjects were aged more than 20 years and less than 60 years. That with any disease and deformity was taken from each individual. Each signature is studied thoroughly by hand lens. Both initial and full signature is compared by handwriting characteristic. Similarities and dissimilarities are then observed and listed.-

Some sample analysis is given below-



FULL SIGNATURE



INITIAL SIGNATURE

The initial and full signature compares to each other by following handwriting characteristic:

□ **Similarities**

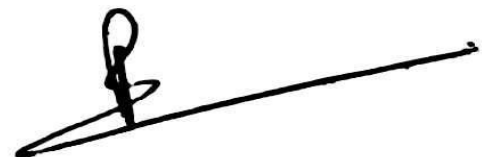
- Slant and slope of both signatures are in same manner.
- The connectivity of letter S to other characters is similar in both signatures.
- Slant underscore below the signature in both.
- The speed of both signatures is same.

□ **Dissimilarities**

- In initial signature the underscore is intact with characters while in full signature separate execution of it.



FULL SIGNATURE



INITIAL SIGNATURE

The initial and full signature compares to each other by following handwriting characteristic:

□ **Similarities**

- Slant and slope of both signatures are in the same manner.
- The initial and full stroke of the underscore line is the same.
- The writing manner of the “P” alphabet in both the initial and full signature is the same.
- The speed of both signatures is the same.




FULL SIGNATURE

INITIAL SIGNATURE


The initial and full signature compares to each other by following handwriting characteristic:

□ **Similarities**

- Slant and slope of both signatures are in the same manner.
- The size and proportion of characters is similar.

□ **Dissimilarities**

- Loop in the full signature is wide.




FULL SIGNATURE

INITIAL SIGNATURE

The initial and full signature compares to each other by following handwriting characteristic:

□ **Similarities**

- Slant and slope of both signatures are in same manner.
- The formation of letter "N" is similar in both the signature.
- The writing manner of S alphabet in the both initial and full signature is same.
- The speed of both signatures is same.

□ **Dissimilarities**

- Underscore in the initial signature is present while in the full signature is absent.
- The formation of curve around letter "N" is absent in full signature.

RESULT

It was observed that from the 20 samples of initial and full signature of all the individual, there was 16 samples which matched by handwriting characteristic. Even they have their own master pattern of signature which reveals in both full and initial signature. But there was 4 samples whose full signature does not match the initial signatures. Initial signatures are complex signatures which are done in business mostly. Initial signatures mostly same to full signature as a small version of them. When they are same, it's become easy to locate the individual by comparing both initial and full the signature. But when they do not match it's become a difficult to do same. In forgery cases when the questioned document have full signature and the suspect gives its initial signature in specimen. Then it's become hard to analyze them when they are not same.

CONCLUSION

Signature tends to be very sensitive to context. Most people would sign an official document such as a will or property deeds with their full signature so that there would not be any doubt about the name while in their routine correspondence such as personal letters, and other documents they usually do their initial signatures. Signatures are very often the subjects of forgery attempt, it can be of initial or full signatures. In this project it was concluded that some individuals do not have similar full and initial signature. But majority of the individuals have similar full and initial signature when they were compared through handwriting characteristic, which includes both initial and class characteristic. Even these signatures have a particular master pattern which shows similarity between both initial and full signature which cannot be observed by a layman but an expert can pinpoint those characteristics.

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