



FSP10 HANDWRITING ANALYSIS

Teacher Background Information

Handwriting analysis

Handwriting experts are commonly called in to assist with a case for two main reasons.

1. When a signature is thought to be forged; and
2. When there are two or more samples of handwriting that must be compared to check if they have been written by the same person.

The basic principle common to all document examination involves a comparison between the suspect or questionable document and a known document. A known document is usually a signature or sample piece of a suspect's writing.

Documents can vary greatly and it is the job of a document examiner to find out as much about a document as possible. This can include examining inks and papers, looking for added words, analysing writing styles, looking for indentations and identifying any other clues that the document may provide to help with the investigation. Document examiners also attempt to find out what faded writing may say and determine if a document has been altered in any way.

Handwriting analysis cannot provide insight into the writer's personality, gender, age, race or educational level.

About handwriting

Handwriting is quite distinctive. No two people write alike. Some similarities may exist, but when inspected closely, writing varies from person to person. Each person's writing style is personal and unique and is the result of unconscious, automatic actions and interaction between a person's brain, eye and hand. Writing can also change based on the person physical or emotional state, the position they are writing in and the tools they are using to write with. Even so, there are still similarities that show through, this is because when you write, you don't think about how you're writing but what you're writing.

Learning to write is a slow and progressive process. Our first attempts at writing look like everyone else's and we carry over some of these characteristics as our writing develops. As we age, however, we develop unique nuances in our writing. By the late teenage years a person's writing has matured to a point where the handwriting style is quite unique.

Many of the writing habits that we develop as young people are carried over into our adult style of writing; these are called class characteristics.

Expert examination

When it comes to the examination of handwriting, there are two elements that examiners can use:

1. They can look at various characteristics of the writing style.
2. They can use lighting, chromatography and other scientific techniques to find out more about the document and the person who produced the document.



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Writing style characteristics

There is a lot of information that can be gained from analysing writing. When examining handwriting there are 12 characteristics that an expert will consider:

- **Line quality.** Are the pen marks smooth and free flowing or shaky and wavering? This can be connected to the speed that the document was written at.
- **Spacing of words and letters.** What is the spacing between letters and words? Is it consistent?
- **Ratio of the relative height, width and size of letters.** What is the ratio? Is it consistent?
- **Pen lifts and separations.** Does the person stop to form new letters and begin words? Forgeries may have lifts in unusual places.
- **Connecting strokes.** Are capitals connected to lowercase letters and are there connecting strokes between letters and words?
- **Beginning and ending strokes.** Are these straight, curled, long or short, an upstroke or a downstroke?
- **Unusual letter formation.** Are there any unusually formed letters such as backward, letters with a tail, or unusual capitals?
- **Shading or pen pressure.** Is the pen pressure on the upward or the downward strokes?
- **Slant.** Is slant left or right or straight up and down? Is there consistency between the slant of letters.
- **Baseline habits.** Is the writing above or below a line?
- **Flourishes and embellishments.** Are there any? If so what are they?
- **Diacritic placement.** How are the t's crossed? Take note of the dotting of i's, j's. For example are the dots to the right or left of the letter?

An expert analysing handwriting can generally tell of a person is right or left handed. Right-handed writers pull the pen across the page, so the pen follows the wrist. Left-handed writers push the pen across the page and write ahead of the wrist. These two completely different actions put different emphasis on the down and up strokes in letter formation. Even is the actual shape of each letter is very similar you can identify fine differences based on the hand used.

The techniques that criminals try

Fraud

Often fraudulent writers try to reproduce the signature of another person.

Copying signatures is very difficult, as the forgery attempt requires the following.

- To be written at the same speed as original writing.
- Correct letter formations.
- Correct height ratio.
- Correct pen pressure.

All these factors must occur simultaneously, making it very difficult to forge a document.

Tracing a signature

Instead of trying to mimic a signature, sometimes forgers will attempt to trace it instead. This technique can be given away as a tracing will often have poor line quality (won't have the smooth, fluent lines of a true signature) and will not have shading difference (the pen ink will be distributed evenly throughout the forged signature, which is uncommon in true signatures).

Disguised writing

Some criminals will attempt to alter their writing so they can hide their identity. Once again, this is extremely difficult to pull off. If the criminal is to be successful at disguising their writing then they need to change to following things:

- The slant of their writing.
- The size of their writing.
- They can alternate between upper and lower case to confuse examiners.
- They can add extra strokes or cross letters in a different manner.

The more words a person writes the more difficult it is to suppress their normal writing style. Usually people will subconsciously slip back into their own writing habits.