

Effect of Age on Handwriting- A Analytical Study

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Abstract:

Handwriting is unique , exclusive and each individual's writing style is distinctive in its own way. Now days we can say that handwriting is a resource of recorded data or information and after modernization period; languages are the indicating symbols for the system and the most important part of it is he writing. Handwriting is personal and each person's have unique style by which we can identify the interactions of a human's brain and eye. It is the most common way to know the person's physical state, any kind of taking alcohol or drugs, its age, the force of the writing tool and environmental factor. Handwriting is vary from person to person no two person whether the twins also doesn't have the same handwriting. The style of writing of each person can change throughout his life. In forensic or any kind of investigations it may uses as the evidence, clues to identify the writers. The aim of this research is about the study of effect of the age factor of retention of individual's handwriting and signature over taking a time period of two to ten years. Here the samples of 50 past handwriting and signatures which compares to the present of those individual. The people are sound healthy by which we can easily compared. Firstly, the magnifiers were used comparison microscope to examine the individual's characteristics of their handwriting. Then analyse the handwriting and characteristics on the basis of samples which shows the causes of deviation.

Keywords: Handwriting, Magnifiers, Signatures, Documents, Characters.

1. INTRODUCTION

Document can be defined as the any written matter that contain writings or any kind of symbol or marks which can be seen or not and it conveys the meaning of that. Examination of document means the document that would be analyzed or examine to obtain the information and for the purpose of justice. The identification of handwriting is the process of comparing or differentiates of handwriting between the two. Or in other words we can say that it is based on the importance of resemblance or variance of

writing. Writing characteristics which expert used to determine the authenticity has pre suppose to be that each handwriting is vary from person to person and has his unique characteristics. It is for whether handwriting of a person is belonged to that person or not in the cases like forgery or fraud. It plays a very important role in our daily life routine because handwriting and signature used everywhere whether it is office in banks, schools, casual writings, listing of required material, marketing, shopping etc. Forensic document examiners used it to get the authentic information or document as evidence to prove crime or innocence. This research is done to get more knowledge about the handwriting and the factors that affect it like speed, stress, pressure, of the penholder, pressure of pen point on the paper it varies in aging process. This research's aim is to study about the effect of age factor retention on individuals characteristics as the any person grows there are many changes occur time to time in their behaviour and also the size of hands and finger changes it affect the handwriting at the millennial age there are many things which run in mind at a same time it affect the handwriting as some time handwriting is very fast at millennial age but when the person came into an older age there are changes like speed may decrease the concentration of person is not very perfect at that age in some cases there are shaking of hand at old age there is some eyesight issues also occur which also affect the handwriting in the research we try to know the effect which came in handwriting with age difference in person to person is the handwriting change in vary ways or it keeps some of the character of their handwriting which are coming from adult age

2. HANDWRITING AND PERSONALITY

As handwriting is known as the neuromuscular activity the handwriting also helo the experts to know about the personality of that person. As some scientist think that the person with bad or very runny handwriting is the person who think very fast due to of fast thinking the peson unable to concentrate on the hand writing as it became bad or very runny.

some features are explained below.

1. Size:

The size of letters can be large, medium or small. These three sorts of size characterize the centralization of writing person. The huge handwriting shows less focus and outgoing person. On-screen characters, legislators and salespersons have huge handwriting. The medium handwriting advises capacity of essayist to focus on things

and looking after them. The author having little handwriting is thoughtful person, have greater capacity to focus. Researchers, writers, authors have little composition.

2. Margin:

The format of the page can be considered as margin. At the point when writer composes on the clear page, they expect margin and composes. The composed page when we see, there is clear space on left, right, top and on base. These are margins. Margin can characterize the past and future, insight, changes, honesty and quickness. On the off chance that there is steady left margin, at that point writer ought to have the great habits and consistent conduct. In the event that it is sporadic, at that point writer is indiscreet about their dressing and conduct. Consistent right margin demonstrates practical insight and the capacity to take choice. Top margin tells about show. Less space on base side shows sluggishness and hesitation of writer.

3. Pressure:

The measure of the power applied at the hour of writing is considered as weight of pen. Pen weight might be substantial, light or medium. The pen weight demonstrates the psychological vitality of the writer. The medium weight delineates the inclination not all that exceptional. The substantial weight shows self-decisive, dynamic, overwhelming in all things, furious, fiery, dynamic, on edge, alert and intersperse. The light weight demonstrates inactivity, tranquility, absence of power and disease.

4. Speed:

The speed indicates how rapidly or gradually the author composes. It shows considering capacity writer. Quick composition demonstrates that author abhorrence to sit tight for anything, having huge nonexistent power and moderate composition indicates reaction to a more noteworthy degree, less imaginary power and thinks gradually. In the event that writer's speed is quick, at that point he gives more space between two words and speck of letter 'i' and bar of letter „t“ isn't there generally or the spot of the „i“ is all the more away from the letter and bar of the „t“ isn't totally crossed, it is crossed more from t-stem to right. By and large, these are the writers with light pen weight and right inclination. On the off chance that writer's speed is moderate, at that point he applies overwhelming weight, speck of 'i' and bar of „t“ is from left precisely or progressively exact. Slow speed handwriting typically has left

inclination and missing end strokes. At the point when writer duplicates from the given material, at that point speed of the composing consequently goes moderate.

5. Spacing:

In graphology dividing suggests the separation kept up between the lines, words and letters by the author. Dividing can uncover different character develops like the writer's closeness with individuals, and furthermore his knowledge. Separating can be recognized into two primary gatherings as wide or restricted.

6. Signature:

Signature to one's open character, presence of mind, inhumanity, articulations, decent variety, and creative mind. signature is the computation and material of your open character. It gives thought of how one carries on in broad daylight, how one pictures around individuals, and so, one's social veneer. It can likewise contain topics of what one think about his character out in the open. It is said that while lettering a sentence, we leave on the pages our data and conviction. In any case, at whatever point we sign, we speak to our name, our self, and our open character on the page. By coordinating one's signature with the remainder of composing, we can inform whether one is the equivalent in network just as in close to home life.

3. SAMPLE COLLECTION

Sample of fifty previous handwritings and signatures of volunteers were collected in proceeding of two to ten years. The samples taken from the same volunteers of the age of twenty to thirty-five they were physically as well as mentally fit by which the samples would not affected.

In the data the previous samples denoted by the Q and serially numbered from Q1 to Q50 on the other hand the current samples were denoted by S and numbered from S1 to S50. The collected samples of handwriting and signature of the same handwriting and signature of the same individual from previous samples were designated with roman number shown as Q1a and the later sample of previous shown as Q1b

Table 1. THE HANDWRITINGS AND SIGNATURES SAMPLES

Sample No	Type of sample	Past year sample marked as Q (assumed Questioned)	Present year sample marked as S (assumed Specimen)
1.	sign	2010 (Q1a), 2009 (Q1b)	2017 (S1)
2.	Written Text	2013(Q2)	2018 (S2)
3.	Written Text	2013	2017
4.	Sign.	2012 (Q4a) ,2005 (Q4b)	2018 (S4)
5.	Written Text	2011	2019
6.	Written Text	2012	2017
7.	Written Text	2010	2018
8.	Written Text	2011	2018
9.	Written Text	2010	2017
10.	Written Text	2011	2018
11.	Written Text	2011	2019
12.	Written Text	2011	2018
13.	Written Text	2010	2017
14.	Written Text	2010	2018
15 to 32	Written Text	2012	2019
33 to 50	Sign.	2012	2019

TABLE 2: MATERIALS REQUIRED

SR.NO.	MATERIAL
1.	Magnifying Glass
2.	Comparison Microscope
3.	Digital Camera
4.	A4 Sheets
5.	Measuring scale

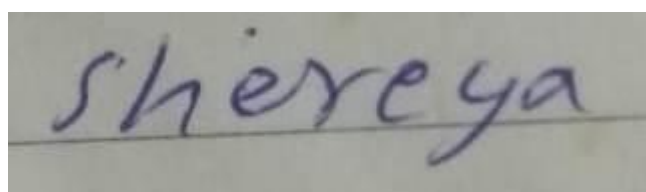
4. METHODOLOGY

Magnifiers used comparison microscope to examine the words and signatures and for the detailed examination and then is to recording of sample which was done by the photography by using camera. Which gives viewer a point of reference from which it is easily to understand how big or small anything in the picture? The writing was enlarged 4 times of its original size and was printed for comparing. Original samples were examined by magnifying glass and the characteristics were identified and marked and taking their enlarged prints and the original samples were preserved for future and prevent from the any kind of damage.

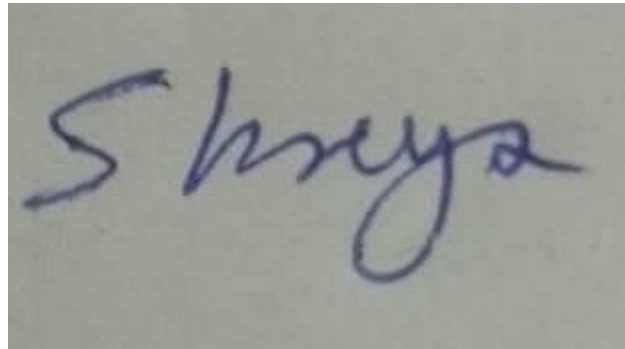
TABLE 3: RESULTS AFTER COMPARING SOME SIGNATURES AND HANDWRITINGS

Sample No.	Sample	Type of preserved characteristics	Findings
1.	Signature	Letter formation, connection between letters, termination.	Both the signatures are of same person
2	Hand Written	design, connection, stroke	Both the handwritings are of same person
3.	Hand Written	Letter design, connection between letters	Both the handwritings are of same person
4.	Signature	Letter formation, initiation, connection Between letters, termination	Both the signatures are of same person
5.	Hand Written	Strokes, connection between letters,	Both the handwritings are of same person

RESULTS: THE SIGNATURES AND HANDWRITINGS OF THE SAME PERSON WITH THE LAPSE OF TIME

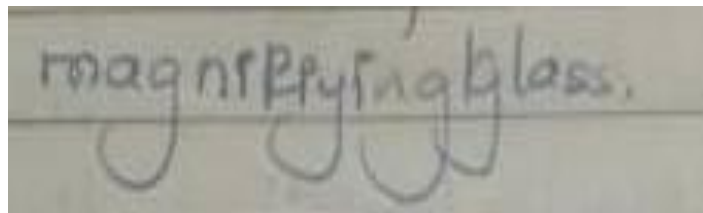


Previous Signature

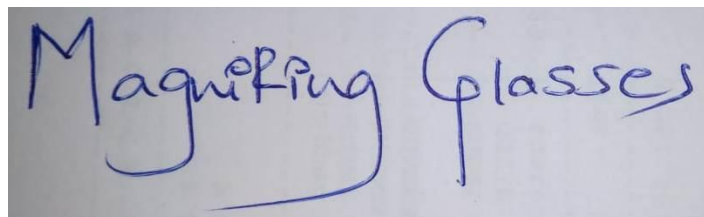


Present Signature

Above Two signature sample has been taken from a girl named Shreya the first signature is previous year and the second signature is of present time

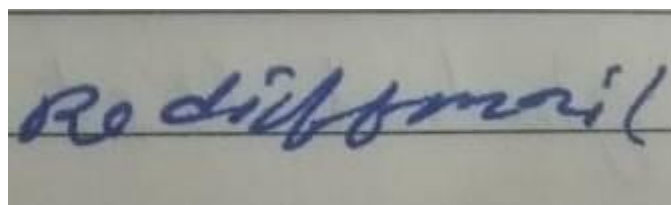


Previous Handwriting

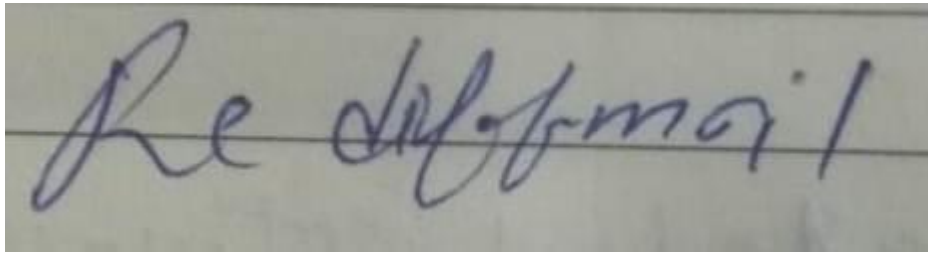


Present Handwriting

Above two images are taken from two different handwritings first is the previous one and second is present handwriting sample

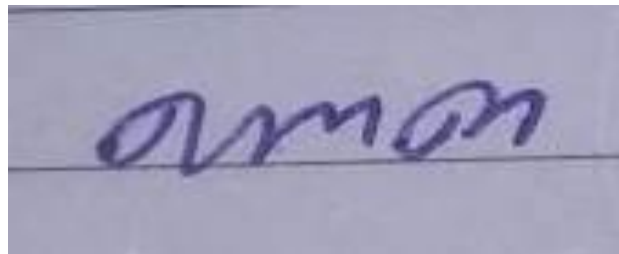


Previous Handwriting

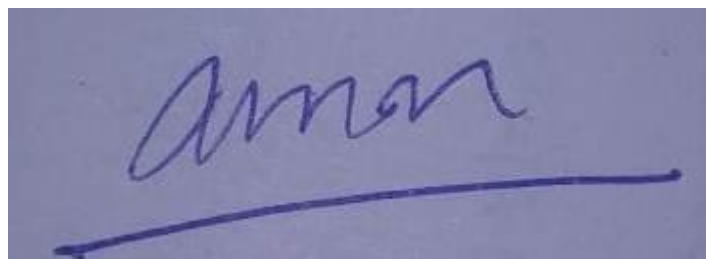


Present Handwriting

Above two images are taken from two different handwritings first is the previous one and second is present handwriting sample



Previous Signature



Present Signature

Above Two signature sample has been taken from a boy named Aman Singh the first signature is previous year and the second signature is of present time

It is shown by this research that all the present samples from S1 to S50 is enough to keep the comparing of individuals characteristics in corresponding with previous handwritings and signature . The observed finding results shown in data which shows the individual characteristics that is design, stroke and termination.

5. DISCUSSION

In forensic science investigations mostly in the white-collar offences handwriting and signatures are the most valuable evidences. Signatures are the verification or identification of the biometrics and in the samples of signatures it is found to be marked in stroke, dots, the designs and the connection. Sample 50 shows the Mannerings and it is kept and possibility of positive matching. Minimum number of changes in characteristics in one word for previous handwriting after a gap of ten years was 3 and in case of maximum number for the same period are 8. It is found that if the years of number would be less the more the number retain characteristics. It is enough to keep the comparison of individuals retained characteristics for the attribution of authorship. In this research, it is shown that all 50 samples keep individual characteristics in the recent year sample.

6. CONCLUSION

Handwriting examination is a rising field for character acknowledgment. The different character examination systems of this field can be executed for getting right character attribute data. Despite the fact that graphology is a built up science, because of human blunder and vagueness in the handwriting examination, exactness of handwriting examination is seen as around 90% right expectation. Automated character distinguishing proof through handwriting examination will demonstrate to be a decent and accommodating system for character characteristics recognizable proof. Such system can be constructed utilizing Artificial neural systems innovation where a system is pre-prepared to recognize qualities of handwriting and guide it to a comparing character characteristic. It can discover its applications particularly in the fields of recruitment, in fields of advertising, prescription and guiding and furthermore biometrics, crime scene investigation thinks about. This research is done for the study related holding of individual characteristics and its forensic importance. It is shown in this paper that even after 10 years the individual characteristics is kept going. Some changes also occur but positive identification could be related to individual's characteristics like stroke, initiation, designing of letters, location, connection, termination are more retained even as time progresses the study shows that the individual characteristics are remaining same in handwriting and signatures examination in spite of aging process.

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