

CHAPTER I

INTRODUCTION

Everyone's handwriting exhibits natural variation depending on several factors. The use of different types of writing instruments, such as a pen, pencil, marker, or crayon, can affect our handwriting. Our mood, our age, and how hurried we are all contribute to the differences we notice in our own handwriting. Despite these minor variations in handwriting, each person has a unique handwriting style. Characteristics such as the slant and curl of the letters, the height of the letters, or even how the page is filled with text can distinguish our identity. This is because the brain is doing the writing. Adults show only slight variation in handwriting, because as children we learn to write through basically the same method. However, once a person starts writing subconsciously, with characters formed as a result of habit, unique handwriting is formed. Like fingerprints, every person's handwriting is unique and personalized. Because handwriting is difficult to disguise and forge, handwriting analysis is a good tool for including or excluding persons when determining a match between known material, known as an exemplar, and a questioned document.^[5]

Document analysis, a very broad area in the field of forensics, is the examination and comparison of questioned documents with known material. Experts establish the authenticity of the documents and detect any changes, erasures, or obliterations that may have occurred^[3]. A questioned document is any signature, handwriting, typewriting, or other written mark whose source or authenticity is in dispute or uncertain. Checks, certificates, wills, passports, licenses, money, letters, contracts, suicide notes, receipts, and even lottery tickets are some of the questioned documents of interest. Experts in this field may examine, type writing commercial printing, paper material, and the type of ink in these documents.

A document expert is a specially trained person who scientifically analyses handwriting and other features in a document. For example, a document expert may be called into a crime-scene area or to the lab to examine the handwriting of threatening notes, ransom notes, or suicide notes. Investigators analyse and compare various traits, such as the appearance of letters, of suspicious documents with known samples to help identify the author of the document. Investigators might also be asked to detect changes that may have occurred in an original document. A document expert is different from a graphologist, who studies the personality of the writer based on handwriting samples. The study of graphology is not necessarily accepted as part of forensic science, but it can be used as a possible indicator of the writer's personality type.

A person's handwriting - the script - and its placing on the page express the unique impulses of the individual: logically, the brain sends signals along the muscles to the writing implement they control. By examining a handwriting sample, an expert graphologist is able to identify relevant features of the handwritten script, and the way the features interact. The features, and interaction between them, provide the information for the analysis. (No single handwriting sample will exhibit all 300 different features of course - a typical analysis will involve far less). No single handwriting feature proves anything specific or absolute by itself; a single feature alone can only identify a trend. It is the combination of features, and the interaction between them that enable a full and clear interpretation. Graphology is actually a very old and respected science - the study of handwriting and its analysis was first developed by the Chinese 3,000 years ago. The Romans used graphology, and through the centuries since then various civilisations and cultures have analysed handwriting to identify the essence of the person who produced it.

The modern approach to handwriting analysis was established by a group of French clerics, led by Abbe Michon, who defined key aspects of the science in the 1870s, after 30 years of study. This work formed the basis of modern graphology, although the science is still being researched and expanded today.

Professional graphologists operate to a strict code of ethics, and these experts are constantly in demand; those who use it recognise its value in the workplace as an additional method of understanding character. It is therefore an extremely useful tool in identifying the quality and capacity of an individual's talents and potential, particularly in career guidance and improving relationships. Like other powerful behavioural or intuitive models, it is not easy to explain how and why graphology works, nevertheless it continues to be used, respected and appreciated by many because it achieves a high level of results.^[4]

However in this research work we focus on studying the changes and cause that happens to a person's handwriting taken while sitting, standing & walking. Writing is a dynamic activity, the forensic document examiners must understand how the writer hold his pen position of the paper, movement of finger, hand, wrist, Body postures etc. When examining a writing the examiner should be able to visualize the movement of the writer, evaluate pen direction, and determine the significance of factors, such as relative relationship between the various parts of a writing, the influence of writing on paper having and not having a pre-drawn baseline, etc. He should also know the importance of system of writing and how they influence the writer during his formative years and even as graphically mature writer.

CHAPTER II

LITERATURE REVIEW

Dong-Eun Lee et.al (2017) “Analysis of body imbalance in various writing sitting postures using sitting pressure measurement” This study set out to substantiate the importance of the right sitting posture by measuring the sitting pressure. It also described the influence of an imbalanced sitting posture on the body. The subjects included 30 healthy adults. A pressure mapping system was used to measure the sitting pressure in the right, one side prone, chin propped, and slumped sitting positions. The WDI showed a statistically significant difference between the 3 incorrect postures (one side prone, chin propped, and slumped sitting) and the right sitting posture. With regard to the WDI (XLR), there was a statistically significant difference between the right sitting posture and the one side prone sitting posture only. One side prone sitting was found to affect the body balance most adversely. This imbalanced posture may have an indirect effect on chronic diseases. The results prove that it is important to assume a proper posture to maintain body balance.

Tomasz Dzedzic (2016) “The Influence of Lying Body Position on Handwriting” The research provided a number of information about the influence of body posture on handwriting. First, it was revealed which features may vary in the handwriting of one person, produced in sitting and lying positions. The characteristics that were most often affected by the position factor were as follows: pen pressure, width and shape of the left margins, and direction and shape of the baselines as well as height of the MZ letters. Second, the experiment showed how often various features may change significantly enough to evaluate them as different. Third, the research revealed what the direction and the extent of changes may be.

Despite all the differences observed, the results of the blindtest phase suggest that when lying position is the only factor that influence handwriting features, determining the authorship of the writings is not problematic. As stated above, the problem of conducting forensic examination of handwriting in last will cases is more complex than in the presented experiment. The circumstances affecting natural variation of handwriting usually include not only body posture but also such issues as age, condition, and the use of medications as well. In such instances, the range of variation in the disputed writings may result from a combination of two or more factors. It is then appropriate for an expert, who is to deal with this kind of a case, to study the results of relevant experimental research before preparing a report.

Ian Flatters et.al (2014) “The relationship between a child’s postural stability and manual dexterity” The neural systems responsible for postural control are separate from the neural substrates that underpin control of the hand. Nonetheless, postural control and eye-hand coordination are linked functionally. For example, a stable platform is required for precise manual control tasks (e.g. handwriting) and thus such skills often cannot develop until the child is able to sit or stand upright. This raises the question of the strength of the empirical relationship between measures of postural stability and manual motor control. This study suggest that poor performance in one domain is not necessarily a reliable indicator of difficulties in another domain. This suggests that a child with manual dexterity problems may not benefit from a therapeutic approach that encourages improved posture (if the child has no postural difficulties). It follows that children should be assessed in depth to produce a profile of their strengths and weaknesses. This would allow targeted therapy so the child with postural difficulties receive help with maintaining balance, whereas the child with manual control problems could obtain help directed

towards improving their manual dexterity. We note that the objective measures described in this study would allow therapists to provide such targeted interventions.

Frank szeligo et.al (2010) “Adaptation of writing posture in response to task Demands for left- and right handers” While levy and Reid's model and the research it has evoked represent an interesting point of view on left handedness, its basic presumption is that an extreme behaviour such an inverted writing posture must represent an extreme underlying case such as neurological problem. Alternatively the present result concur with other result that suggest, in its characteristics, Invertedness contain information about lefthander's adjustment to right hand world. Consequently, as a method for investigating and measuring this adjustment invertedness may be of even greater interest. Considering the implication of the present version of the adaptation hypothesis, if we right handers has been taught to right with lefthand/backward slant to our letters, then many of us would have been inverters. Given the inversions reported on present study, standard postureitethen have been prescribed.

Jerre Levy University of Chicago (1984) “ A Review, Analysis, and Some New Data on Hand-Posture Distributions in Left-Handers” Different methods have been employed to assess handwriting posture in lefthanders, and different dimensions of hand posture have been used for categorization. Within North American samples, there is a remarkable consistency between studies in the distributions when the same assessment method is used, but there are very large and highly significant differences for different methods of assessment. The various methods and dimensions of categorization evidently index different variables, and these are likely to have different relations with neuropsychological factors.

This study shows that different methods of hand-posture assessment in lefthanders and different dimensions of hand posture show very different distributions, even within North American samples, and for some dimensions and methods, vary across populations. This means that different variables are being assessed, and these are likely to have different relations with neuropsychological factors. What those relations might be are questions for the future. These researchers had subjects classify their own hand posture from pictorial prototypes, and as shown, the distributions obtained from this procedure differ very significantly from those obtained when experimenters assess hand posture according to Levy and Reid's (1976, 1978) criteria. Nonetheless, the reliability study suggests that other self-assessment procedures can yield classifications highly similar to those made by an experimenter, and if this were to be confirmed in future studies, it would be useful for survey research.

CHAPTER III

AIM AND OBJECTIVES

AIM:

To Study the Influence of Walking & Standing Activities on Normal Handwriting.

OBJECTIVES:

- Collection of Handwriting samples in Physical activity like Standing & Walking.
- Comparison of Standard handwriting with questioned Standing & Walking handwriting sample.
- Observation of variations occurring due to Physical activity influence, Especially while standing & Walking.

CHAPTER IV

MATERIALS AND METHODOLOGY

MATERIALS REQUIRED:

- Pen
- Bond Paper
- Magnifying lens
- Sample writing
- Light source

METHODOLOGY:

Handwriting samples are collected by providing printed content to participants. Handwriting samples are collected from different individuals in sitting, standing, and walking activities. Handwriting characteristics are examined by Magnifying glass and White light source.

A person's handwriting exhibits unique characteristics that make it distinguishable from other samples. The handwriting of any document can be examined or analysed in many different types of ways. In this study strokes, pressure of the strokes, slants of the strokes, size of the letter, spacing between the letters, spacing between the words, strings of the letter, base line and alignment of letters, shape of the letter and word was analyzed to study the variations in handwriting collected from Sitting, Standing and Walking activities. After collection of Handwriting samples, Samples of sitting can be considered as Standard quality and Handwriting obtained from Standing and Walking are considered as questioned documents for comparison with standard handwriting.

Hence, effects of standing and walking activity influence on handwriting can be determined. Before conducting cross examination for particular characteristics, overall handwriting examination was conducted which gives understanding about selection for characters prominent to detect variation. In current study, we have considered following characteristics for detection of variations from sitting to Standing and Walking.

1. Slant
2. Size and Proportion
3. Spacing
4. Pressure
5. Rhythm

CHAPTER V

SAMPLE & OBSERVATION

Sample – 1 Sex: M Age: 20			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Irregular	Irregular	Irregular
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Decrease	Increase
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

our London business is good, but Vienna and Berlin are quiet Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens Greece November 27 or December 2. Letters there should be addressed King James Blvd 3580. we expect Charles E. Fuller Tuesday D.V.L. McQuaid and Robert Unger Esq. left on the YX Express tonight.

Figure 1.1 Sitting

our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd 3580 we expect Charles E. Fuller Tuesday D.V.L. McQuaid and Robert Unger Esq. left on the YX Express tonight.

Figure 1.2 Standing

our London business is good, but Vienna and Berlin are quiet Mr. D. Lloyd has gone to Switzerland. I hope for good news. He will be there for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens Greece November 27 or December 2. Letters there should be addressed King James Blvd 3580. we expect Charles E. Fuller Tuesday D.V.L. McQuaid and Robert Unger Esq. left on the YX Express tonight.

Figure 1.3 Walking

Sample – 2 Sex: M Age: 20			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Decrease	Increase
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

Figure 2.1 Sitting

Figure 2.2 Standing

Figure 2.3 Walking

Sample – 3 Sex: F Age: 20			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	vertical	vertical	vertical
Size & Proportion	Normal	Normal	Increase
Spacing	Normal	Normal	Increase
Pressure	Normal	Decrease	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

Our London business is good, but Vienna and Berlin are quiet. Mr. De Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zornstrasse Street and then goes to Turin and Rome and will join cultural party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed by James Blvd. 3580. We expect Charles E. Fuller Tuesday, Dr. L. McQuinn and Robert Voger, Esq. left on the 'Y.X.' Express tonight.

Figure 3.1 Sitting

Our London business is good, but Vienna and Berlin are quiet. Mr. De Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zornstrasse Street and then goes to Turin and Rome and will join cultural party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed by James Blvd. 3580. We expect Charles E. Fuller Tuesday, Dr. L. McQuinn and Robert Voger, Esq. left on the 'Y.X.' Express tonight.

Figure 3.2 Standing

Our London business is good, but Vienna and Berlin are quiet. Mr. De Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zornstrasse Street and then goes to Turin and Rome and will join cultural party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed by James Blvd. 3580. We expect Charles E. Fuller Tuesday, Dr. L. McQuinn and Robert Voger, Esq. left on the 'Y.X.' Express tonight.

Figure 3.3 Walking

Sample – 4 Sex: M Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertica	Vertica
Size& Proportion	Normal	Normal	Normal
Spacing	Normal	Normal	Decrease
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

The London Letter

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq. left on the 'V.V' Express tonight.

Figure 4.1 Sitting

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be left on the 'V.V' Express tonight.

Figure 4.2 Standing

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt street and then goes to Turin and Rome and will arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq. left on the 'V.V' Express tonight.

Figure 4.3 Walking

Sample – 5 Sex: F Age: 20			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	vertical	vertical	vertical
Size & Proportion	Normal	Normal	Increase
Spacing	Normal	Normal	Normal
Pressure	Normal	Normal	Normal
Rhythm	Normal	Dissimilar	Dissimilar

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has gone
to Switzerland and I hope for good news.
He will be there for a week at 1496
Zermatt Street and then goes to Turin
and Rome and will join Colonel Parry
and arrive at Athens Greece, November
27 or December 2. Letters there should
be addressed King James Blvd. 3580.
We expect Charles E. Fuller Tuesday.
Dr. L. McQuaid and Robert Unger, Esq.,
left on the "Y.Y." Express tonight.

Figure 5.1 Sitting

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has gone
to Switzerland and I hope for good news.
He will be there for a week at 1496
Zermatt Street and then goes to Turin
and Rome and will join Colonel Parry
and arrive at Athens Greece, November
27 or December 2. Letters there should
be addressed King James Blvd. 3580.
We expect Charles E. Fuller Tuesday.
Dr. L. McQuaid and Robert Unger, Esq.,
left on the "Y.Y." Express tonight.

Figure 5.2 Standing

Our London business is good but Vienna
and Berlin are quiet, Mr. D Lloyd has
gone to Switzerland and I hope for
good news. He will be there for a week
at 1496 Zermatt street and arrive at
Athens Greece, November 27 or
December 2. Letters there should
be addressed King James Blvd. 3580.
We expect F. Fuller Tuesday. Dr L Mc
and Robert Unger, Esq., left on the
"Y.Y." Express tonight.

Figure 5.3 Walking

Sample – 6 Sex: F Age: 19			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Left	Vertical	Vertical
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Normal	Normal
Pressure	Normal	Increase	Decrease
Rhythm	Normal	Similar	Dissimilar

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Luedt has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt Street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq. left on the 'Y.X.' Express tonight.

Figure 6.1 Sitting

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Luedt has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt Street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq. left on the 'Y.X.' Express tonight.

Figure 6.2 Standing

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Luedt has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zermatt Street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq. left on the 'Y.X.' Express tonight.

Figure 6.3 Walking

Sample – 7 Sex: F Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Normal
Spacing	Normal	Normal	Normal
Pressure	Normal	Increase	Decrease
Rhythm	Normal	Similar	Dissimilar

One London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1436 Zanetti Street and then goes to Turin and Rome and will join school party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3500. We expect Charles F. Fuller Tuesday. Dr. L. McQuaid and Robert Unge, Esq., left on the 'V. X.' Express tonight.

Figure 7.1 Sitting

One London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1436 Zanetti Street and then goes to Turin and Rome and will join school party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3500. We expect Charles F. Fuller Tuesday. Dr. L. McQuaid and Robert Unge, Esq., left on the 'V. X.' Express tonight.

Figure 7.2 Standing

One London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1436 Zanetti Street and then goes to Turin and Rome and will join school party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3500. We expect Charles F. Fuller Tuesday. Dr. L. McQuaid and Robert Unge, Esq., left on the 'V. X.' Express tonight.

Figure 7.3 Walking

Sample – 8 Sex: M Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	vertical
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Decrease	Decrease
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Dissimilar

our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd
is in Switzerland and hope for good
news. He will be there for a week at
least. I hope for good news. He will
be in Rome and will visit the
party and will visit the party
in Greece November 27 or December
1. Letters should be
addressed Miss James Blvd. 3570
we expect Charles E. Fuller
Tuesday. Dr. L. McQuaid and Robert
Unger Esq. left on the Y. X. Express
last night.

Figure 8.1 Sitting

our London business is good, but
Vienna appears quiet. Mr. D.
Lloyd is in Switzerland and
hope for good news. He will
be there for a week at least. I
hope for good news. He will
be in Rome and will visit the
party and will visit the party
in Greece November 27 or December
1. Letters should be
addressed Miss James Blvd. 3570
we expect Charles E. Fuller
Tuesday. Dr. L. McQuaid and Robert
Unger Esq. left on the Y. X. Express
last night.

Figure 8.2 Standing

our London business is good, but
Vienna appears quiet. Mr. D.
Lloyd is in Switzerland and
hope for good news. He will
be there for a week at least. I
hope for good news. He will
be in Rome and will visit the
party and will visit the party
in Greece November 27 or December
1. Letters should be
addressed Miss James Blvd. 3570
we expect Charles E. Fuller
Tuesday. Dr. L. McQuaid and Robert
Unger Esq. left on the Y. X. Express
last night.

Figure 8.3 Walking

Sample – 9 Sex: F Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size& Proportion	Normal	Normal	Increase
Spacing	Normal	Normal	Increase
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Dissimilar

Our London business is good, but Vienna and Berlin are quiet Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1476 Zermatt street and then goes to Turin and Rome and will join Colonel party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq., left on the 'y.x' Express tonight.

Figure 9.1 Sitting

Our London business is good, but Vienna and Berlin are quiet Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1476 Zermatt street and then goes to Turin and Rome and will join Colonel party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq., left on the 'y.x' Express tonight.

Figure 9.2 Standing

Our London business is good, but Vienna and Berlin are quiet Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1476 Zermatt street and then goes to Turin and Rome and will join Colonel party and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq., left on the 'y.x' Express tonight.

Figure 9.3 Walking

Sample – 10 Sex: F Age: 18			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Normal
Spacing	Normal	Normal	Normal
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Dissimilar

The London Letter
Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1196 Zernolt Street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens, Greece, November 21 or December 1. Letters there should be addressed King James Blvd 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq., left on the 'V.X.' Express tonight.

Figure 10.1 sitting

The London Letter
Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He Turin and Rome and will join Colonel Parry and arrive at Athens, Greece, November 21 or December 1. Letters there should be addressed King James Blvd 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq., left on the 'V.X.' Express tonight.

Figure 10.2 Standing

The London Letter
Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will there for a week at 1196 Zernolt Street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens, Greece, November 21 or December 1. Letters there should be addressed King James Blvd 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq., left on the 'V.X.' Express tonight.

Figure 10.3 Walking

Sample – 11 Sex: F Age: 19			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Normal	Increase
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

Our London business is good, but Vienna and Berlin are quite quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1416 Zernolt Street and then goes to Paris and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3880. We expect Charles E. Folger Tuesday. Dr. L. McQuib and Robert Uggas, Esq., left on the 'Y. X.' Express tonight.

Figure 11.1 Sitting

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1416 Zernolt Street and then goes to Paris and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3880. We expect Charles E. Folger Tuesday. Dr. L. McQuib and Robert Uggas, Esq., left on the 'Y. X.' Express tonight.

Figure 11.2 Standing

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1416 Zernolt Street and then goes to Paris and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3880. We expect Charles E. Folger Tuesday. Dr. L. McQuib and Robert Uggas, Esq., left on the 'Y. X.' Express tonight.

Figure 11.3 Walking

Sample – 12 Sex: F Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Increase
Spacing	Normal	Normal	Increase
Pressure	Normal	Decrease	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

Figure 12.1 Sitting

Figure 12.2 Standing

Figure 12.3 Walking

Sample – 13 Sex: M Age: 20			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Increase
Spacing	Normal	Normal	Normal
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Dissimilar

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Loyal has gone to Switzerland and hopes for good news. He will be here for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens Greece. November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday Dr. L. McQuaid and Robert Unger, Esq. left on the 'Y.X.' express tonight.

Figure 13.1 Sitting

Our London business is good but Vienna and Berlin are quiet. Mr. D. Loyal has gone to Switzerland and hopes for good news. He will be here for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens Greece. November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday Dr. L. McQuaid and Robert Unger, Esq. left on the 'Y.X.' express tonight.

Figure 13.2 Standing

Our London business is good but Vienna and Berlin are quiet. Mr. D. Loyal has gone to Switzerland and hopes for good news. He will be here for a week at 1496 Zermatt street and then goes to Turin and Rome and will join Colonel Parry and arrive at Athens Greece. November 27 or December 2. Letters there should be addressed King James Blvd. 3580. We expect Charles E. Fuller Tuesday Dr. L. McQuaid and Robert Unger, Esq. left on the 'Y.X.' express tonight.

Figure 13.3 Walking

Sample – 14 Sex: M Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Right	Irregular	Irregular
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Normal	Normal
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Dissimilar	Dissimilar

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has gone
to Switzerland and I hope for good news.
He will be there for a week at 1496
Zermatt street and then goes to Turin
and Rome and will join Colonel Parry
and arrive at Athens, Greece, November
27 or December 2. Letters there should
be addressed King James Blvd. 3580.
We expect Charles E. Fuller Tuesday.
Dr. L. McQuaid and Robert Unger, Eng.,
left on the "Y.Y." Express tonight.

Figure 14.1 Sitting

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has gone
to Switzerland and I hope for good news.
He will be there for a week at 1496
Zermatt street and then goes to Turin
and Rome and will join Colonel Parry
and arrive at Athens, Greece, November
27 or December 2. Letters there should
be addressed King James Blvd. 3580.
We expect Charles E. Fuller Tuesday.
Dr. L. McQuaid and Robert Unger, Eng.,
left on the "Y.Y." Express tonight.

Figure 14.2 Standing

Our London business is good but Vienna
and Berlin are quiet, Mr. D Lloyd has
gone to Switzerland and I hope for
good news. He will be there for a week
at 1496 Zermatt street and arrive at
Athens, Greece, November 27 or
December 2. Letters there should
be addressed King James Blvd. 35.
We expect F. Fuller Tuesday. Dr L Mc
and Robert Unger, Eng., left on the
"Y. X." Express tonight.

Figure 14.3 Walking

Sample – 15 Sex: M Age: 17			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Decrease
Spacing	Normal	Normal	Decrease
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Normal

OUR London business is good but Vienna
and Berlin are quiet Mr. D. Lloyd has
gone to Switzerland and I hope for good
news. He will be there for a week at
1498 Zermatt street and then goes to
Zurich and Rome and will join Colonel
Parry and arrive at Athens Greece,
November 27 or December 2 Letters there
should be addressed King James Blvd
3580 we expect Charles E. Fuller Tuesday
Dr. L. McQuaid and Robert Unger. Esq. left
on the Y.X. Express tonight

Figure 15.1 Sitting

OUR London business is good but Vienna
and Berlin are quiet Mr. D. Lloyd has
gone to Switzerland and I hope for good
news. He will be there for a week at
1498 Zermatt street and then goes to
Zurich and Rome and will join Colonel
Parry and arrive at Athens
Greece, November 27 or December 2
Letters there should be addressed
King James Blvd. 3580. we expect Charles
E. Fuller Tuesday. Dr. L. McQuaid and
Robert Unger, Esq. left on the Y.X. Express
tonight

Figure 15.2 Standing

OUR London business is good, but Vienna
and Berlin are quiet Mr. D. Lloyd has
gone to Switzerland and I hope for good
news. He will be there for a week at
1498 Zermatt street and then goes to Zurich
and Rome and will join Colonel Parry
and arrive at Athens Greece, November
27 or November 2 Letters there should
be addressed King James Blvd. 3580.
we expect Charles E. Fuller Tuesday. Dr. L.
McQuaid and Robert Unger. Esq. left
on the Y.X. Express tonight

Figure 15.3 Walking

Sample - 16 Sex: M Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Increase	Increase
Spacing	Normal	Increase	Increase
Pressure	Normal	Decrease	Decrease
Rhythm	Normal	Normal	Normal

our London business is good but
Vienna and Berlin are
quiet MR D Lloyd has gone to
Switzerland. I hope for good
news. He will be here for
a week at 1496 Zehnott
street and then goes to Turin
and Rome and will join
Colonel Paddy and arrive at
Athens Greece November 27
or December 2. Letters there
should be addressed. DR
L. McQuaid and Robert
Unger Esq left on the Y. X
Express tonight

Figure 16.1 Sitting

our London business is good but
Vienna and Berlin are
quiet MR D Lloyd has gone to
Switzerland. I hope for good
news. He will be here for
a week at 1496 Zehnott
street and then goes to Turin
and Rome and will join
Colonel Paddy and arrive at
Athens Greece November 27
or December 2. Letters there
should be addressed. DR
L. McQuaid and Robert
Unger Esq left on the Y. X
Express tonight

Figure 16.2 Standing

our London business is good
Vienna and Berlin are quiet
MR D Lloyd has gone to
Switzerland and I hope
for good news. He will
be here for a week at 1496
Zehnott street and then goes
to Turin and Rome and
will join Colonel Paddy
and arrive at Athens Greece
November 27 or December 2.
Letters there should be addressed
King James Blvd. 3600
we expect Charles E. P. P. P.
Tuesday. DR L. McQuaid and
Robert Unger Esq. left on the
Y. X Express tonight

Figure 16.3 Walking

Sample – 17 Sex: M Age: 19			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size& Proportion	Normal	Increase	Increase
Spacing	Normal	Increase	Increase
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Normal

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1196 Zermatt Street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3320. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert L. McQuaid left on the 'ex-press' tonight.

Figure 17.1 Sitting

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1196 Zermatt Street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3320. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert L. McQuaid left on the 'ex-press' tonight.

Figure 17.2 Standing

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1196 Zermatt Street and then goes to Turin and Rome and will join Colonel Perry and arrive at Athens, Greece, November 27 or December 2. Letters there should be addressed King James Blvd. 3320. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert L. McQuaid left on the 'ex-press' tonight.

Figure 17.3 Walking

Sample – 18 Sex: M Age: 20			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Normal
Spacing	Normal	Normal	Normal
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Dissimilar

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has
gone to Switzerland and I hope get good
news. He will be there for a week at
1716 Zermatt street and then goes to
Geneve, November 27 or December 2.
Turin and Rome and will join Colonel
Parry and arrive at Athens, Greece,
November 27 or December 2. Letters there
should be addressed King James
 Blvd. 3580. We expect Charles E. Butler
Tuesday. Dr. L. McQuaid and Robert Singer
Esq. left on the 'y.x.' Express tonight.

Figure 18.1 Sitting

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has
gone to Switzerland and I hope get good
news. He will be there for a week at
1716 Zermatt street and then goes
to Turin and Rome and will join
Colonel Parry and arrive at Athens,
Greece, November 27 or December 2.
Letters there should be addressed
King James Blvd. 3580. We expect
Charles E. Butler Tuesday. Dr. L. McQuaid
and Robert Singer, Esq., left on the 'y.x.'
Express tonight.

Figure 18.2 Standing

Our London business is good, but Vienna
and Berlin are quiet. Mr. D. Lloyd has
gone to Switzerland and I hope get good
news. He will be there for a week at
1716 Zermatt street and then goes
to Turin and Rome and will join
Colonel Parry and arrive at Athens,
Greece, November 27 or December 2.
Letters there should be addressed
King James Blvd. 3580. We expect
Charles E. Butler Tuesday. Dr. L. McQuaid
and Robert Singer, Esq., left on the 'y.x.'
Express tonight.

Figure 18.3 Walking

Sample – 19 Sex: F Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Vertical	Vertical	Vertical
Size & Proportion	Normal	Normal	Normal
Spacing	Normal	Normal	Normal
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Normal

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zeanott Street and then goes to Turin and Rome and will join Colonel Parny and arrive at Athens, Greece, November 29th or December 2. Letters there should be addressed King James Blvd 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq, left on the 'Y.X.' Express tonight.

Figure 19.1 Sitting

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zeanott Street and then goes to Turin and Rome and will join Colonel Parny and arrive at Athens, Greece, November 29th or December 2. Letters there should be addressed King James Blvd 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq, left on the 'Y.X.' Express tonight.

Figure 19.2 Standing

Our London business is good, but Vienna and Berlin are quiet. Mr. D. Lloyd has gone to Switzerland and I hope for good news. He will be there for a week at 1496 Zeanott Street and then goes to Turin and Rome and will join Colonel Parny and arrive at Athens, Greece, November 29th or December 2. Letters there should be addressed King James Blvd 3580. We expect Charles E. Fuller Tuesday. Dr. L. McQuaid and Robert Unger, Esq, left on the 'Y.X.' Express tonight.

Figure 19.3 Walking

Sample – 20 Sex: F Age: 21			
Characteristics	Activities		
	Sitting (Standard)	Standing (Questioned)	Walking (Questioned)
Slant	Right	Right	Right
Size & Proportion	Normal	Normal	Increase
Spacing	Normal	Normal	Increase
Pressure	Normal	Normal	Decrease
Rhythm	Normal	Normal	Dissimilar

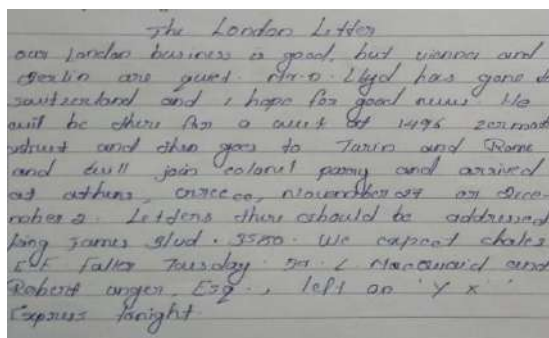


Figure 20.1 Sitting

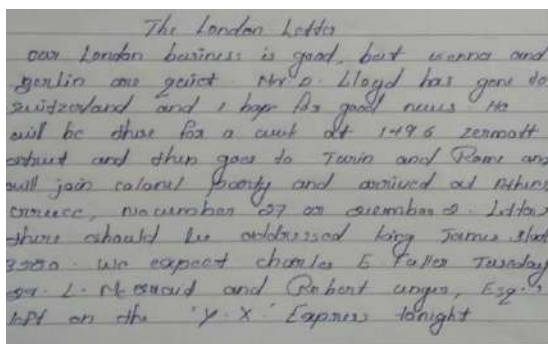


Figure 20.2 Standing

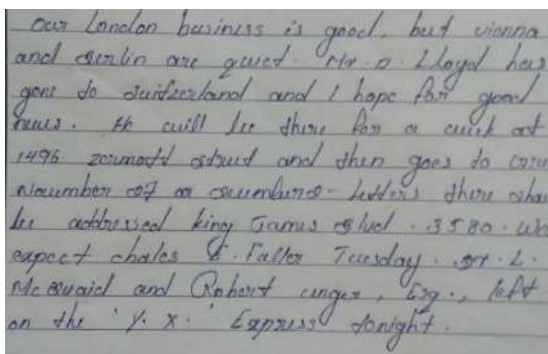
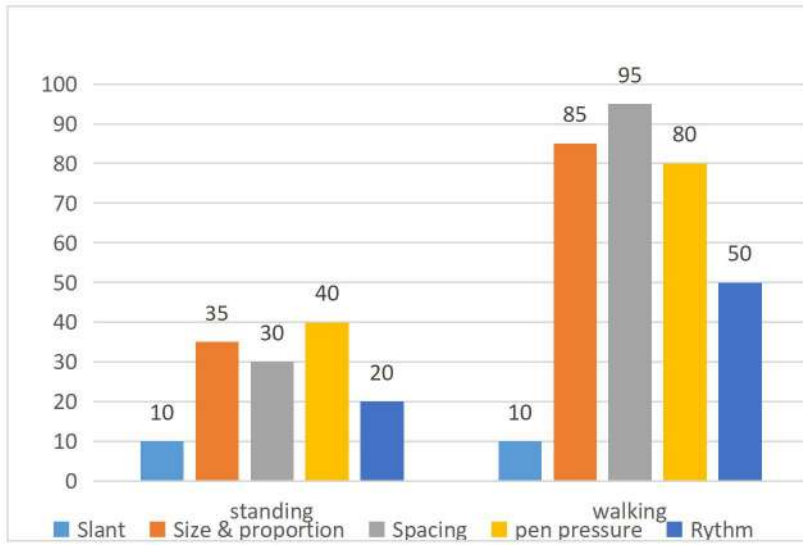


Figure 20.3 Walking

GRAPH:-



SCALE:-

X-axis:-

Deviation of features in Posture's

Y-axis:-

Percentage

CHAPTER VI

RESULT AND CONCLUSION

RESULT:

All the samples collected while standing, & walking, have dissimilarity compared to standard writing . Out of all the five features used for analysis spacing, proportion & size, pen pressure are the features that shows more dissimilarity.

From the graph we can observe that in standing & walking position pen pressure is 40% & 80%, Space is 30% & 95%, proportion & size is 35% & 85% from this observation we can note that both samples taken while standing and walking has dissimilarity, when compared to standard writing handwriting samples in walking position shows more dissimilarity than the handwriting samples in standing position.

CONCLUSION:

From this observation we can say that handwriting samples taken while standing postures did not show significant changes. While the handwriting samples taken in walking posture showed more dissimilarity when compared to standard writing taken. From this we can conclude that body position does influence the handwriting of a person. In this topic much deeper study on more samples considering various factors like injury, intoxication, mental health etc and various standard to be collected as per suspicion is required.

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