Punctuation Marks: The Basis of Individualisation

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Abstract

This research study examines the forensic application of stylistic techniques in the analysis of variations in the formation of punctuation marks and to determine whether these variations could be the basis of individualisation or not. Two hundred participants from above matric level qualification backgrounds, each submitted 888 words of text authored by the researcher. The texts were analysed in terms of the presence and formation of punctuation marks given in the text.

Keywords: Punctuation Marks Formation; Forensic Stylistics; Qualitative Analysis.

Introduction

In the wide field of forensic science, the scientific examination of documents has one purpose: to provide information about the history of a document for the benefit of a court of law or, before that, to an investigating police officer or other agent seeking evidence that might be present in the document. The same philosophy that pervades forensic science applies to document examination – the application of scientific method and techniques to the problems relevant to the situation. Frauds related to documents have always been expletive to the society. Sometime, the situation becomes worst when the deterioration in handwriting appears so prominently that identification of writer turns out to be a problem. In these cases, the way of writing or a person's writing habit plays a very important role in personal identification [9]. Stylistics is a word originated from style; it is a method which studies different styles. Stylistics is the study and evaluation of texts from a linguistic viewpoint. Stylistics also attempts to make principles capable of explaining the choices made by individuals and social groups in their use of language, such as socialization, the production and gathering of meaning, critical converse analysis and literary assessment.

Principle of Individuality in Stylistics

1. Every mature writer has a handwriting which is personal and individual to him alone.

2. Every writer has an incomparable approach of using a language both in handwriting or verbal communication.

3. Every individual has their own distinctive conspicuous characteristics which are accidently reflected in their handwriting each time he or she writes.

Objectives

- To determine the variation in formation of punctuation marks using stylistic techniques

- To determine whether the formation of punctuation marks can be the basis of individualisation or not

S.K. Choudhary et al. (2018) [5] Stated that some *Common Style Marker in Handwritings as follows: -*

a) *Marginal spacing:* Every writer starts the procedure of handwriting after leaving some space from all the four margins of the paper (i.e. left, right, top and bottom). The amount of marginal space isvarying from writer to writer

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so forming the individuality.

b) *Formation of paragraph:* Some writers are in the habit of formation of proper paragraph while writing but some of them don't form paragraph. Also, the location and length of paragraphs differs between two writers.

c) *Page number:* The style of giving a page number and its location creates uniqueness in writer.

d) *Headings and subheadings:* Appearance or disappearance of headings and subheadings and their location are writer specific.

e) *Emphasizing of words or phrases:* The style which a writer adopts to feature or punctuate a word or phrase creates individuality in the writer. Such displaying way can be classified as usage of block letters, change of pen or writing material, thickening of strokes, underlining etc.

f) *Underlining style:* Single, double or triple underlining, dotted or crossed underline.

g) *Bulleting:* Design or style of bullets used in handwriting

h) *Grammar and vocabulary:* There is a way the writer uses a language, choice of words and phrases to show their feelings. It also measures the proper use of tenses and prepositions.

i) *Misspellings:* Spellings of certain words which have fixed in the mind of any writer remain constant every time and the writer uses that word in his or her handwriting. There is no matter how difficult form of disguise writers practice, the intellectual impression remains same throughout.

j) *Frequently usesthe words or phrases:* Usage of word or phrase every time the writer writes. E.g.: "name of the writer at the starting" etc.

k) *Abbreviations:* Use as the short forms of words, commonly seen in text messages or conversation app. E.g. "use of n or & instead of and"; "Ok or k instead of okay"; "d instead of the"; "u in place of you" etc.

l) *Use of profanity:* Usage of patois in handwriting. E.g. "Bullshit", "Shit" etc.

Punctuationis the use of spacing, common signs, and certain geographic device as benefit to the grasp and the correct reading, both soundless and loquacious, of handwritten and printed texts. Another nature is: "The habit, action, or system of including points or other small marks into texts, in order to benefit analysis; class of text into sentences, clauses, etc., by mode of such marks." According to Oxford dictionaries there are 12 punctuation marks which can be used in writing a meaningful text.

Methodology

This research method begins by examining some ethical considerations related to this study and then moves on to discuss how the participants were chosen. The next section characterizes how the data was collected, followed by a review of the research methods employed and then focuses on the qualitative analysis. This part examines the method used to identify the formation of punctuation marks in the participant's handwritings that make each set of writing unique.The stylistic analysis involves analysing the texts for punctuation marks and then comparing them individually with a standard model of punctuation marks.The 200 participants for this study were students of higher secondary (XI and XII) and Undergraduate level (1st year, 2nd year and 3rd year); there are random population of males and females. Aged between 16-21 years. The two hundred students were divided as forty students from each class. The participants were given a self-authored text, any type of linguistic difference is negligible. To obtain writing samples, author had visited different high schools and undergraduate colleges in Delhi, India. Each student was provided with the sample sheet on which 200 words self-authored text was printed. The sample sheet further contains 4 boxes in which participants made to copy the text in their regular handwriting. Research Method involves that

McMenamin (2002) [8] offer a framework for an authorship comparison study, and this has been used to conduct the given research.

Step 1 is to assemble all questioned writing sample and known writing sample and check it for compatibility and comparability. Questioned handwritings in case of this research are handwritings obtained from the participants and the known handwriting is the known standard model of punctuation marks.

Step 2 is to stylistically analyse the texts for similarity and difference between the formation of punctuation marks in the questioned handwritings or samples obtained from the students.

Step 3 is to formulate a table where all the punctuation marks are placed, and comparison is to be done between the formation of punctuation marks in sample handwritings to the formation of punctuation marks in standard models.

Step 4 is to represent the data in graphical form and analyse the percentage variation in the formation of punctuation marks among the 200 participants

Qualitative Analysis

McMenamin (2002) [8] states that describing the language of a relevant text should be the first step to analysing and interpreting the text. In this section, first we will look at issues relevant to the stylistic analysis of this study, and after that we will show how the qualitative analysis is conducted.

Formation of each punctuation mark from 200 participants are compared with the standard formation, characterizing them in a table, followed by the graphical representation of their occurrence in writings of 200 participants. Graphical findings of the different punctuation marks and their occurrence are given at the end of this section.
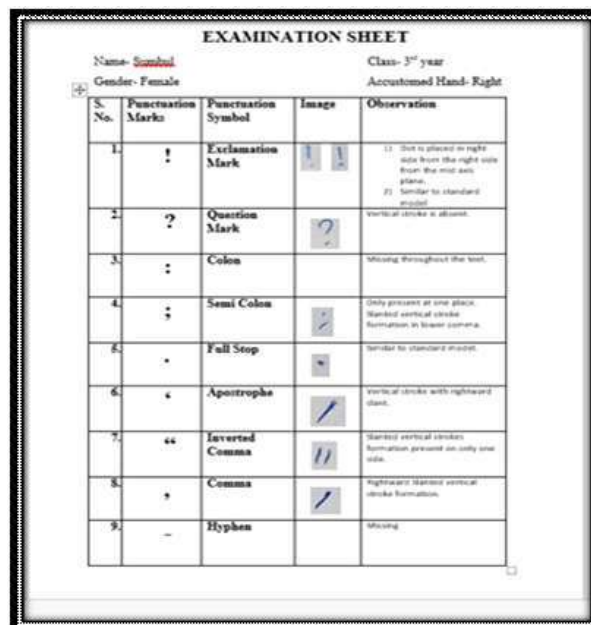

Box 1: An example of the examination sheet and how the examination was conducted

Observation Table of Variation of Punctuation Marks

Table 1: Findings for ExclamatoryMark

S. No	Variation	Occurrence in Number of Students
1	Curve in vertical stroke formation.	11
2	Dot is placed in the right side from the mid-axis plane.	30
3	Dot is replaced by circle.	31
4	Curved stroke connected to the dot.	1
5	Vertical stroke connected to the dot	3
6	Dot is placed in the left side from the mid-axis plane.	16
7	Elongated dot formation	7
8	Numeral '7' like formation.	2
9	Small loop formation at the top	1
10	Rightward oblique stroke	27
11	Leftward oblique stroke	19
12	Left right slant and dot moves to the either side of the slant	2
13	Standard formation	52
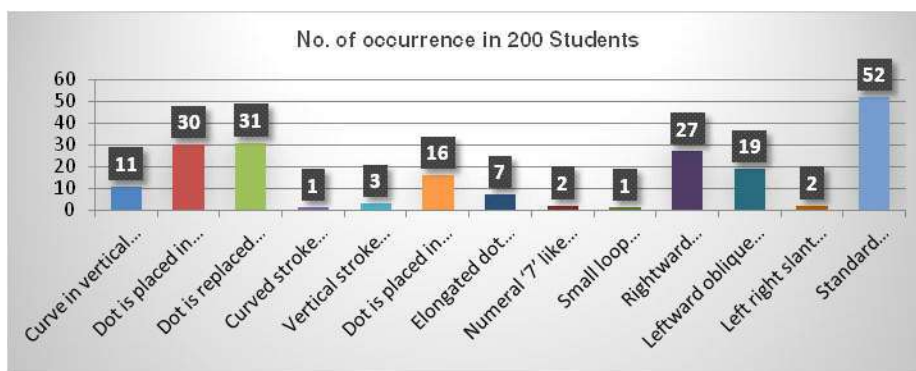
Fig. 1: Graphical representation for Exclamatory Mark

Table 2: Findings for Question mark

S. No.	Variations	Number of Occurrence
1	Numeral 9 like formation	21
2	Only hook formation	24
3	Numeral 7 like formation.	29
4	Hook is connected to the dot	8
5	Incomplete hook formation	2
6	Curve in vertical stroke	15
7	Hindi letter 'Ra' like formation	27
8	Loop formation in hook	2
9	Flat top curve of hook formation	3
10	Rightward slanted curve	19
11	Inverted 'S' like formation	2
12	Inverted numeral '4' like formation.	1
13	Numeral '3' like or zig-zag formation.	2
14	Similar to standard model	21
15	Initial end tends to touch the slant stroke	3
16	Initial stroke/ end curved inwardly	7
17	Dot is replaced by circle	4
18	Inverted 'U' shaped hook formation	4
19	Dot is placed rightwards from the mid-axis plane	6
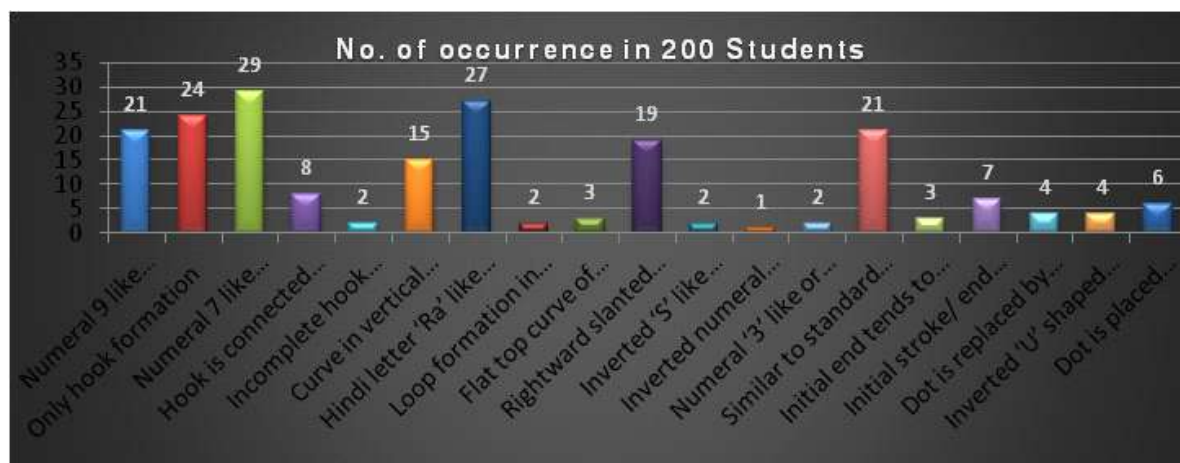
Fig. 2: Graphical representation for Question Mark

Table 3: Findings for colon

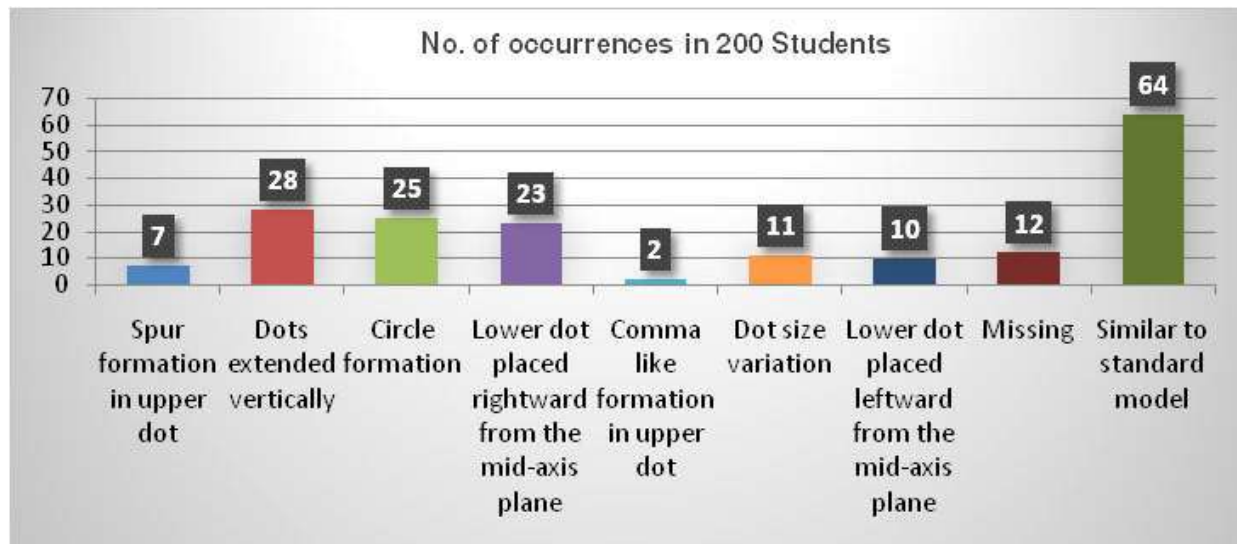| S.No.	Variations	Number of Occurrence in 200 Participants
1	Spur formation in upper dot	7
2	Dots extended vertically	28
3	Circle formation	25
4	Lower dot placed rightward from the mid-axis plane	23
5	Comma like formation in upper dot	2
6	Dot size variation	11
7	Lower dot placed leftward from the mid-axis plane	10
8	Missing	12
9	Similar to standard model.	64

Fig. 3: Graphical representation for Colon

Table 4: Findings for Semi-colon

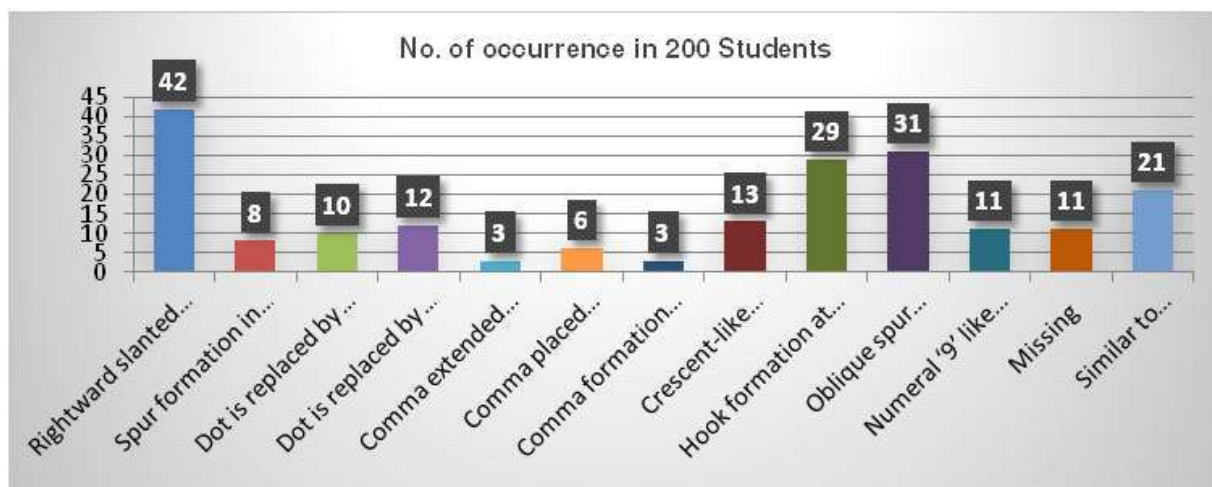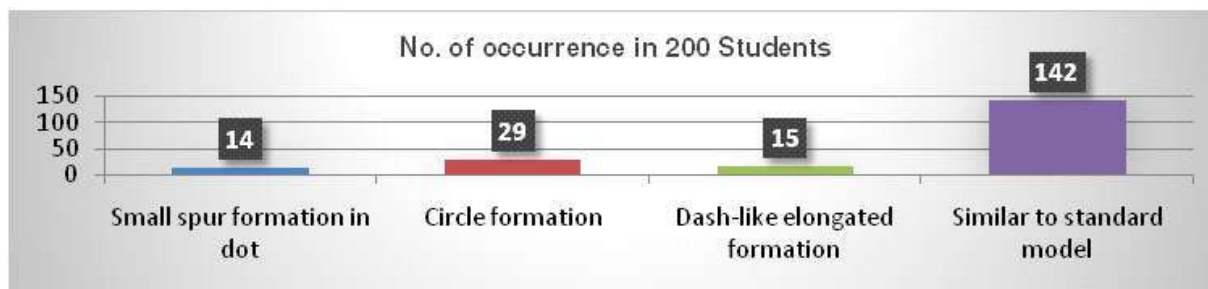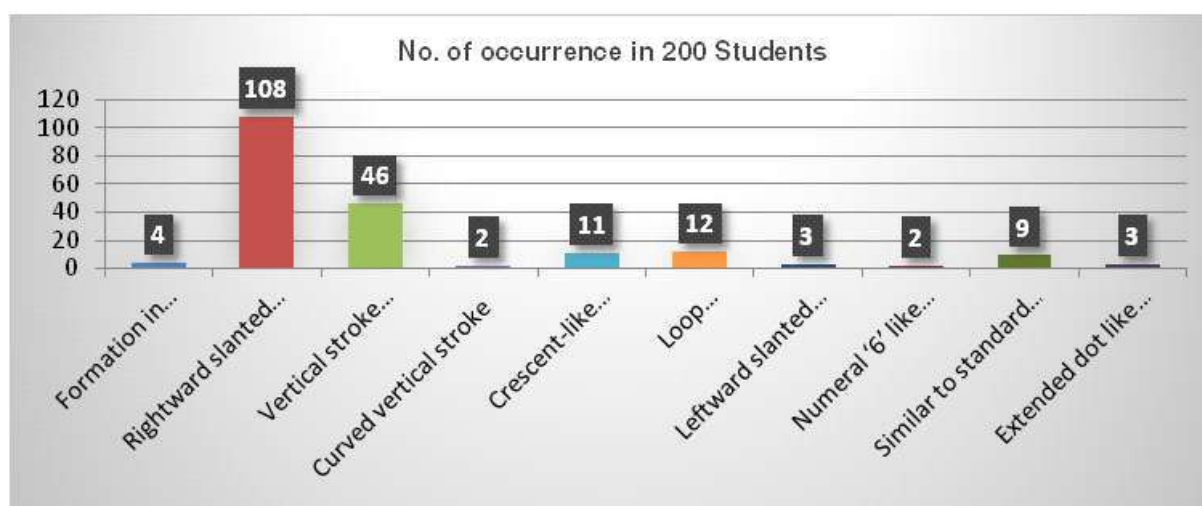| S. No.	Variations	Number Of Occurrence In 200 Participants
1	Rightward slanted stoke in lower comma	42
2	Spur formation in upper dot	8
3	Dot is replaced by vertical stroke	10
4	Dot is replaced by circle.	12
5	Comma extended horizontally	3
6	Comma placed rightward from the mid-axis plane	6
7	Comma formation in opposite direction	3
8	Crescent-like formation of comma	13
9	Hook formation at terminal end	29
10	Oblique spur formation of comma	31
11	Numeral '9' like formation.	11
12	Missing	11
13	Similar to standard model	21

Fig. 4: Graphical representation for Semi Colon

Table 5: Findings for full stop or period.

S.No.	Variations	Number Of Occurrence In 200 Students
1	Small spur formation in dot	14
2	Circle formation	29
3	Dash-like elongated formation	15
4	Similar to standard model	142

Fig. 5: Graphical representation for Full Stop
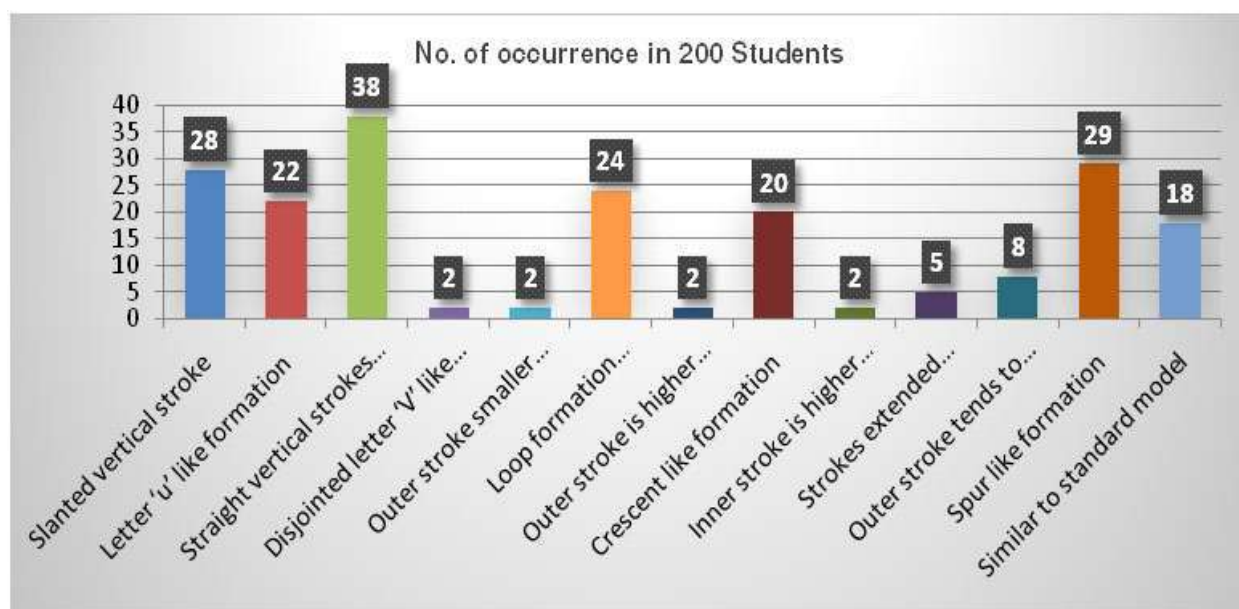
Table 6: Findings for Apostrophe

S. No.	Variations	Number of Occurrence in 200 Participants
1	Formation in opposite direction	4
2	Rightward slanted vertical stroke	108
3	Vertical stroke formation	46
4	Curved vertical stroke	2
5	Crescent-like formation	11
6	Loop formation, numeral '9' like formation.	12
7	Leftward slanted vertical stroke	3
8	Numeral '6' like formation.	2
9	Similar to standard model	9
10	Extended dot like formation	3

Fig. 6: Graphical representation for Apostrophe

Table 7: Findings for Inverted Comma

S.No.	Variations	Number of Occurrence in 200 Participants
1	Slanted vertical stroke	28
2	Letter 'u' like formation	22
3	Straight vertical strokes resembling to numeral '11'	38
4	Disjointed letter 'V' like formation	2
5	Outer stroke smaller than inner stroke	2
6	Loop formation resembling to letter '66'	24
7	Outer stroke is higher than inner stroke	2
8	Crescent like formation	20
9	Inner stroke is higher than outer stroke	2
10	Strokes extended upwards	5
11	Outer stroke tends to touch inner stroke	8
12	Spur like formation	29
13	Similar to standard model	18

Fig. 7: Graphical representation for Inverted Comma

Table 8: Findings for Comma

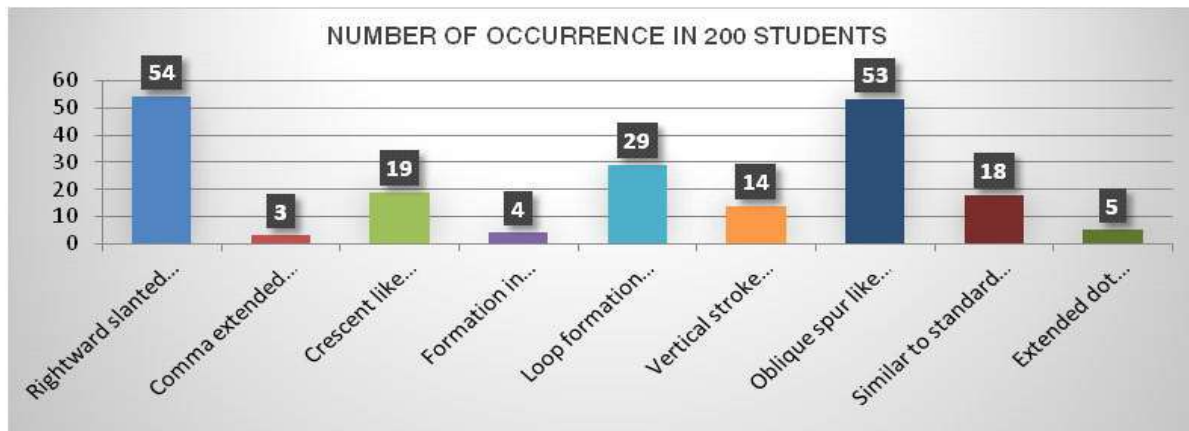| S.No.	Variations	Number of Occurrence in 200 Students
1	Rightward slanted vertical stroke	54
2	Comma extended horizontally	3
3	Crescent like formation	19
4	Formation in opposite direction	4
5	Loop formation resembling to numeral '9'	29
6	Vertical stroke formation	14
7	Oblique spur like formation	53
8	Similar to standard model	18
9	Extended dot formation	5

Fig. 8: Graphical representation for Comma

Table 9: Findings for Hyphen

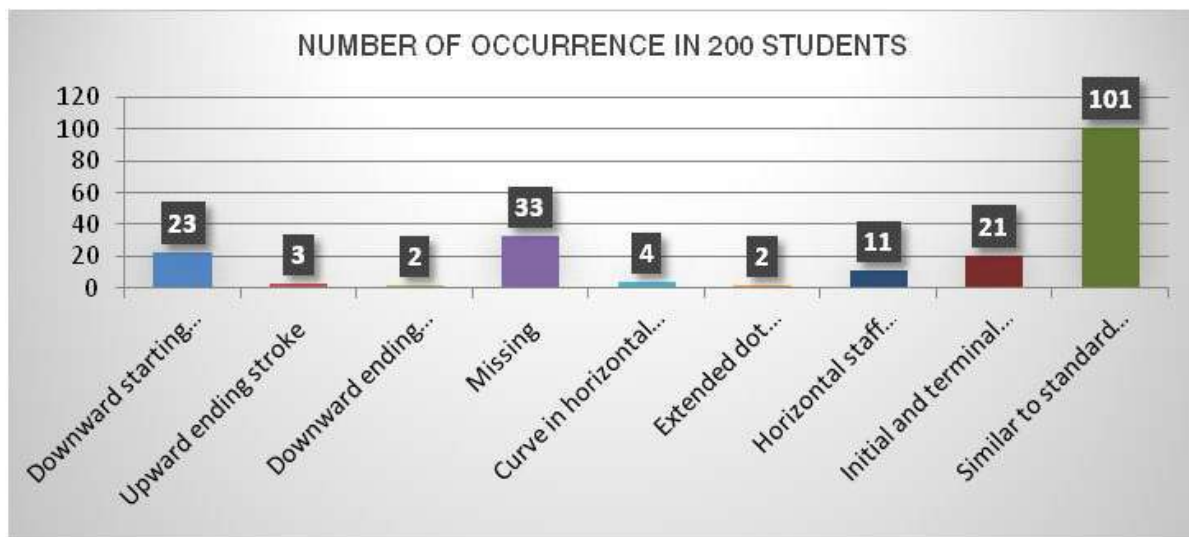| S.No.	Variations	Number Of Occurrence In 200 Students
1	Downward starting stroke	23
2	Upward ending stroke	3
3	Downward ending stroke	2
4	Missing	33
5	Curve in horizontal stroke	4
6	Extended dot formation	2
7	Horizontal staff terminates sharply	11
8	Initial and terminal end curve in opposite orientation	21
9	Similar to standard model	101

Fig. 9: Graphical representation for Hyphen

Result and Discussion

This study has two aims:

(1) To determine the variation in formation of punctuation marks using stylistic techniques, and

(2) To determine whether the formation of punctuation marks can be the basis of individualisation or not.

As shown in the graphs of different punctuation marks there is high number of variation occurs in the all punctuation marks. Highest variation occurs in (Table 2) Question Marks i.e. 19 variation occurs,

and lowest variation occurs in the in the (Table 9) Full Stop i.e. 4 variation occurs, therefore, there is the deviation in the formation of punctuation marks occurred in large numbers. As the population taken in the consideration is small, this large deviation from the standard model formation is significant and cannot be neglected. Some of these features were shared by the individuals in consideration. So, these features can also be use as the class characteristic and can define a class of individuals. Therefore, this study can be used to narrow down the analysis to an individual. The study of the formation of punctuation marks found that the number of variation of formation of punctuation marks is in high amount (Table 1 to 9). The result we reported here appear to be in line with those introduced by researchers including [4,7 & 8]. Find out if the number of citations made to an article was associated with the title length and the punctuation marks in the titles. Also, analysis that which of the type and the number of punctuation marks frequently used in the titles [8]. The concept of style and stylistics variation in language are based on the general notion that within the language system, the content can be encoded in more than one linguistic form [1]

Conclusion

In unselfconscious utterance, certain features occur—relatively permanent features of the speech or writing habits—which identify someone as a specific person, distinguishing him from other users of the same language. (Crystal and Davy 1969, 66)

While examining the punctuation marks of 200 students from class 11th, 12th, 1st, 2nd, and 3rd year students we found that there is occurring in the variation in the formation of punctuation marks which shows that the punctuation marks is the highly individual characteristics because the student not follow the copy book model and

form there own handwriting characteristics in the forming of handwriting.

Suggestions for further research

Given the relatively narrow focus of this study, both in terms of the chosen population andtext, there is anexcellent deal more research that needs to be done if we are to fully understand how stylistics is applied for the attribution of authorship examination.

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