Comparative Study of Handwriting among English Medium and Hindi Medium Students

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Abstract:

Handwriting is a visible speech which express by writing with the , help of writing instrument on writing surface. The objective of the present study was to assess the handwriting characteristics between the Hindi Medium and English Medium students (school). Sample ratio was equal i.e. 50 samples from each category were collected and analyzed. All the samples were collected in English language strictly as the participants were familiar with this language. The class and individual handwriting characteristics such as Alignment, Pen pressure, spacing, Speed, Rhythm, Slant, Writing Style, Tremor, Retouching, Buckle, Spur, Eye etc. were assessed to carry out the present study and the result reveals that there is significant difference between Alignment, Pen pressure, Speed, Rhythm, Writing style, Retouching, Tremor, Buckle and minor difference between Slant, Spur and Eye and no significant difference between Inter-letter spacing, Inter-Word spacing and Inter-Line spacing.

Keywords: *Handwriting; Handwriting characteristics; Hindi Medium; English Medium.*

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Introduction

Today's world is a world of globalization. English Language has become very important in our daily life. In India, **British** introduced the language 'English' with the establishment of the East India Company in **1600**. Then, the use of English was further popularized by the **Christian Missionaries** and they started to make English Medium Schools which have great impact on Indians.

In **1857**, the three English Medium universities of **Bombay, Calcutta & Madras** were introduced. Due to these universities, the new education policy gave the special importance to the use of the regional languages (i.e. vernacular languages) and also gave the instruction that English should be taught where there was a need for it.

When India became independent, it was decided that the language **"Hindi"** would be our National language and in **1965**, English became the official language. This decision was taken because Hindi was not accepted as national language as expected. Therefore, for business or marketing purpose, English became the associate language along with Hindi **(Pathan and Shaikh, 2012).**

Material and Methodology

The present study has been conducted on the randomly collected handwriting sample of **100** individuals of two different medium (i.e. **50** samples from English Medium Students and 50 samples from Hindi Medium Students**).

The Handwriting samples collected from the **Higher Secondary** and **Senior Higher Secondary students** of various schools of **Jhansi** city. Who were studying in different mediums (Hindi medium & English medium). The subjects were familiar with writings in English language. The handwriting samples taken from subjects on white executive bond paper and the students are dictated with written matter of English language. And they were not allowed to see their previous writing samples taken for the present study.

The handwriting samples are written with the **Blue Ball pen** in same condition. And they were not allowed to change their pen and surface (paper) for writing sample. Collected samples were than analyzed with the help of handwriting principles, transparent stencil, magnifying lens and handwriting characters which includes – **Alignment, Pen pressure, Spacing, Speed, Rhythm, Slant, Writing Style, Tremor, Retouching, Buckle, Spur and Eye etc.**
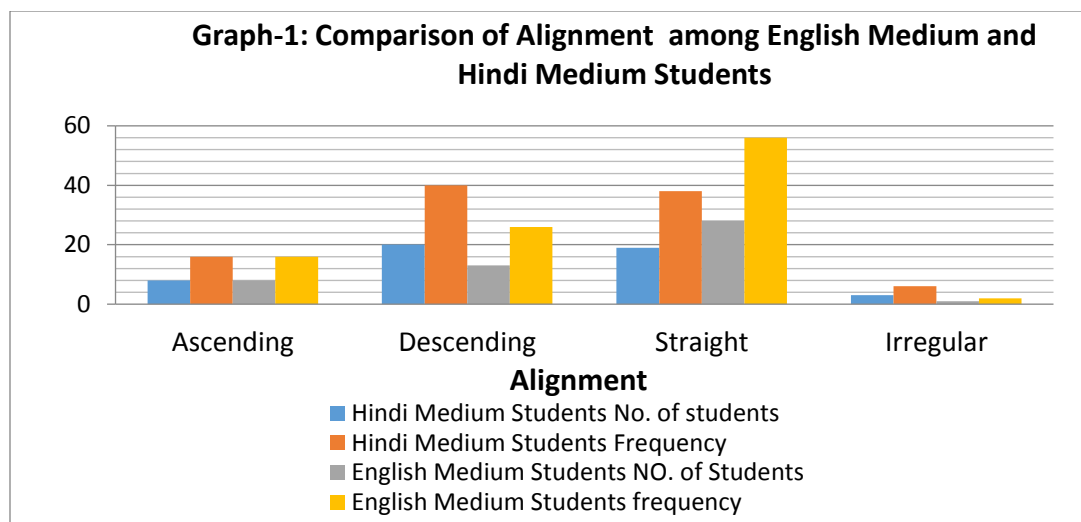
Result and Discussion

The present study has been conducted on the handwriting samples of **100** individuals to study the characteristics features of handwriting to determine the differences of the handwriting of the English and Hindi Medium Students.

The results are shown in table – characteristics features of handwriting to determine the differences of the handwriting
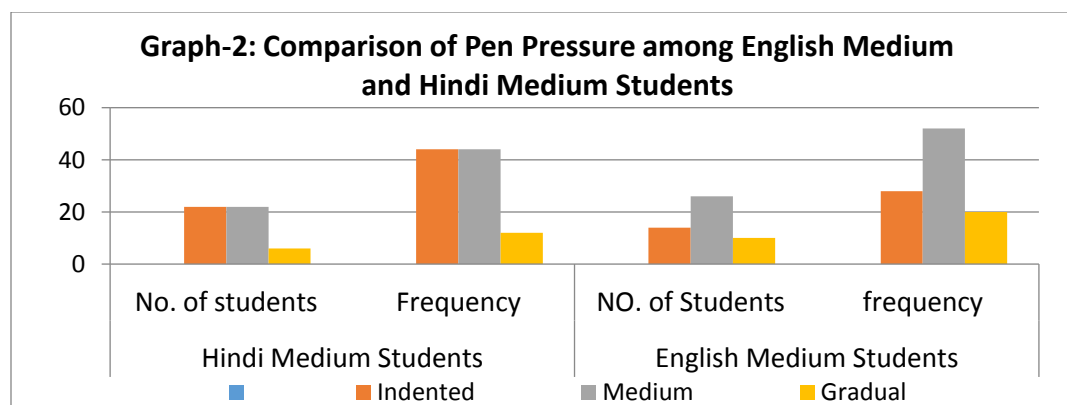
S NO.	Characters	Hindi Medium		English Medium	
		No. of students	Frequency (%)	No. of students	Frequency (%)
1.	**BASELINE/ Alignment**				
	• Ascending	8	16	8	16
	• Descending	20	40	13	26
	• Straight	19	38	28	56
	• Irregular	3	6	1	2
2.	**PEN PRESSURE**				
	• Indented	22	44	14	28
	• Medium	22	44	26	52
	• Gradual	6	12	10	20
3.	**SPACING**				
1.	**Inter-Letter spacing**				
a.	• Narrow	8	16	5	10
b.	• Medium	34	68	34	68

c.	• Wide	8	16	11	22
	Inter-Word spacing				
a.	• Narrow	4	8	1	2
b.	• Medium	42	84	44	88
c.	• Wide	4	8	5	10
	Inter-Line spacing				
a.	• Narrow	6	12	1	2
b.	• Medium	30	60	35	70
c.	• Wide	10	20	14	28
d.	• Irregular	4	8	0	0
3.	**SPEED**				
	• Slow	-	-	-	-
	• Medium	32	64	18	36
	• Fast	18	36	32	64
4.	**RHYTHM**				
	• Smooth	20	40	31	62
	• Intermittent	30	60	18	36
	• jerky	-	-	-	-
5.	**SLANT**				
	• Obtuse	29	58	25	50
	• Acute	16	32	6	12
	• Straight	5	10	19	38
6.	**WRITING STYLE**				
	• printing	14	24	10	20
	• cursive	5	10	24	48
	• Print writing	31	62	16	32
7.	**TREMOR**				
	• Present	25	50	15	30
	• Absent	25	50	35	70
8.	**RETOUCHING**				
	• Present	44	88	27	54
	• Absent	6	23	23	46
9.	**SPUR**				
	• Present	14	28	22	44
	• Absent	36	72	28	56
10.	**BUCKLE**				
	• Present in 'A'	14	28	19	38
	• Present in 'S'	4	8	2	4
	• Present in 'H'	-	-	4	48
11.	**EYE**				
	• Present in 'E'	31	62	36	72
	• Present in 'R'	32	64	36	72
	• Present in 'W'	7	14	7	14
	• Present in 'O'	19	38	25	50
	• Absent	-	-	3	6

Graph-1: Comparison of Alignment among English Medium and Hindi Medium Students
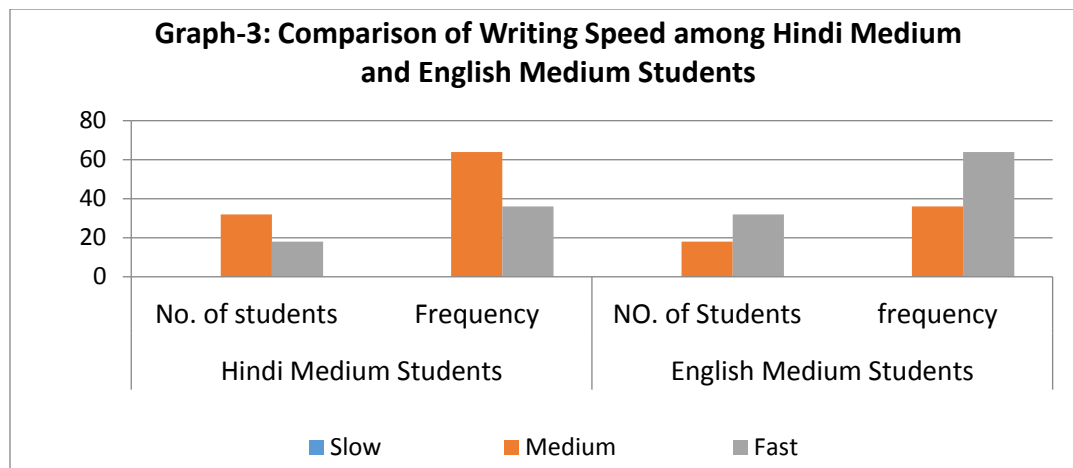

Graph:1 shows the comparison of **Alignmen**t among Hindi Medium Students and English Medium Students.

It is observed by the table that **Descending Alignment** is more occur in **Hindi medium students** although **English Medium student** has **Straight Alignment**.

Graph-2: Comparison of Pen Pressure among English Medium and Hindi Medium Students
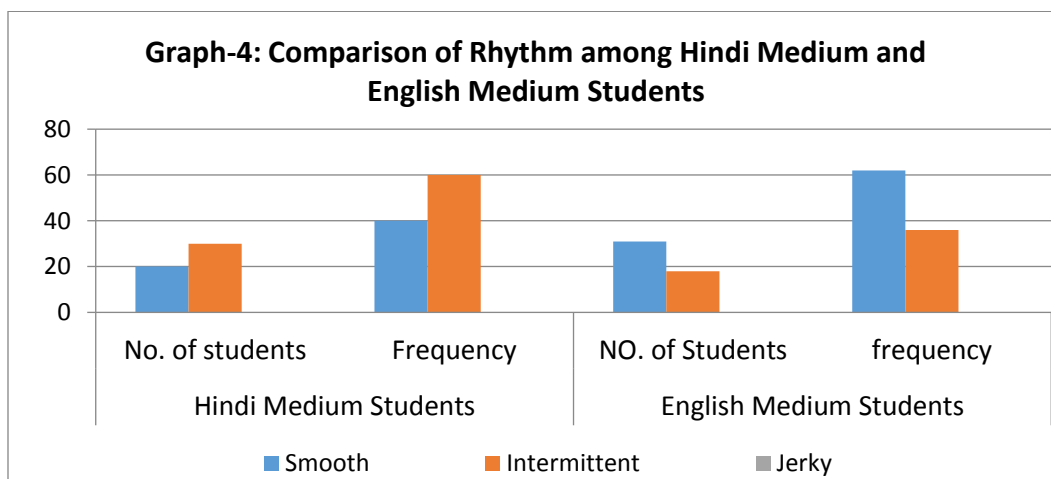

Graph:2 shows the comparison of **Pen pressure** among Hindi Medium Students and English Medium Students.

It is observed by the table that **Indented and Medium Pen pressure** is more occur in **Hindi medium students** although English **Medium student** has **Medium pen pressure.**

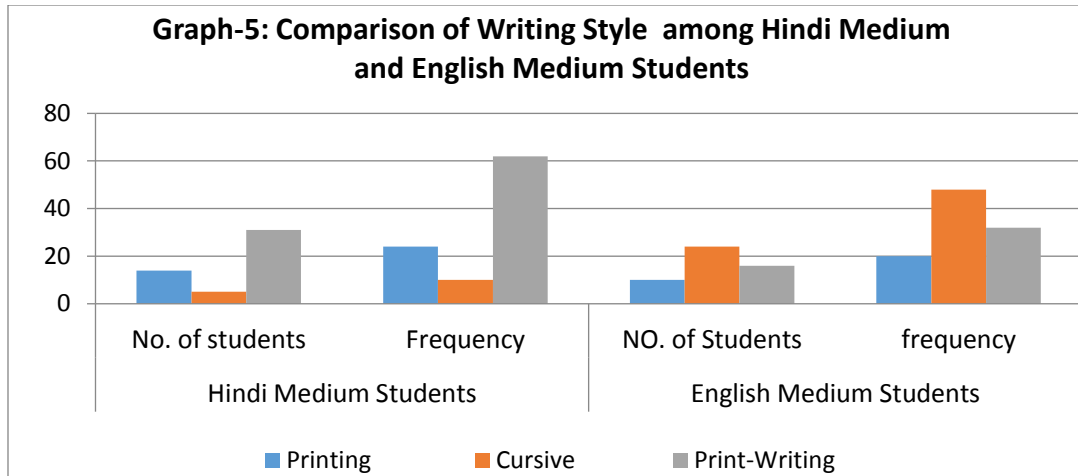**Graph-3: Comparison of Writing Speed among Hindi Medium and English Medium Students**

Graph:3 shows the comparison of **writing Speed** among Hindi Medium Students and English Medium Students.

It is observed by the table that **Medium Speed** is more occur in **Hindi medium students** although English **Medium student** has **Fast Speed**.

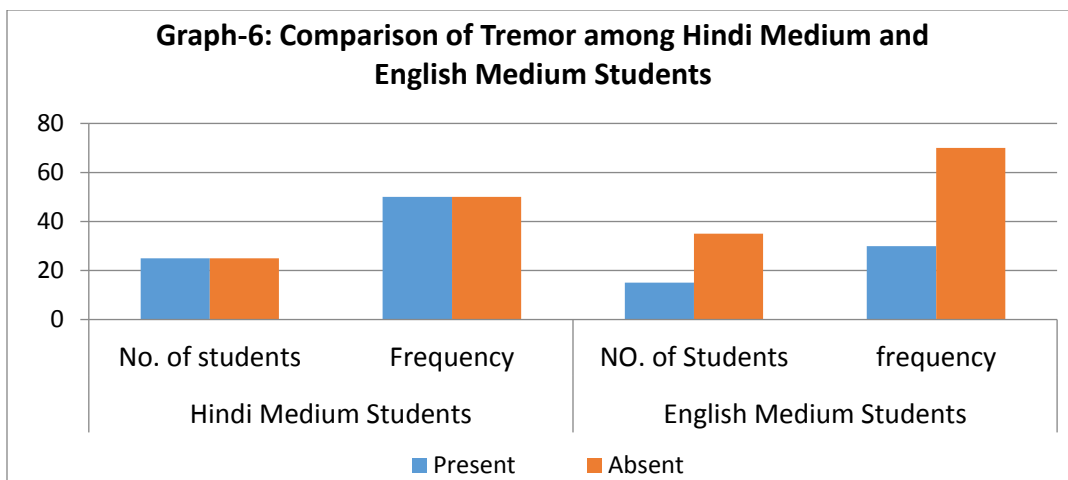**Graph-4: Comparison of Rhythm among Hindi Medium and English Medium Students**

Graph:4 shows the comparison of **Rhythm** among Hindi Medium Students and English Medium Students.

It is observed by the table that **Intermittent** is more occur in **Hindi medium students** although **English Medium student** has **Smooth**.

Graph-5: Comparison of Writing Style among Hindi Medium and English Medium Students
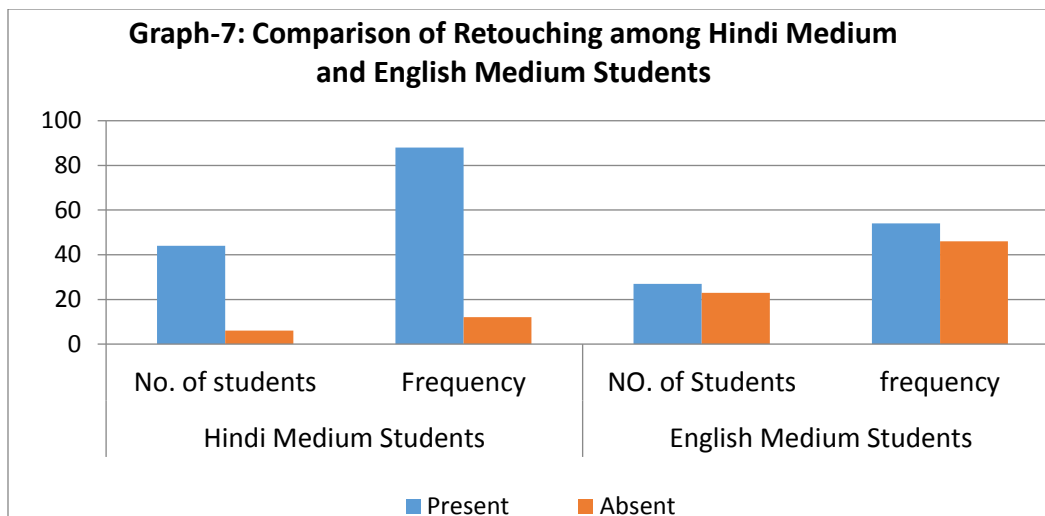
Graph:5 shows the comparison of **Writing Style** among Hindi Medium Students and English Medium Students.

It is observed by the table that **Print-Writing Style** is more occur in **Hindi medium students** although English **Medium students** have **Cursive Writing Style.**

Graph-6: Comparison of Tremor among Hindi Medium and English Medium Students

Graph:6 shows the comparison of **Tremor** among Hindi Medium Students and English Medium Students.
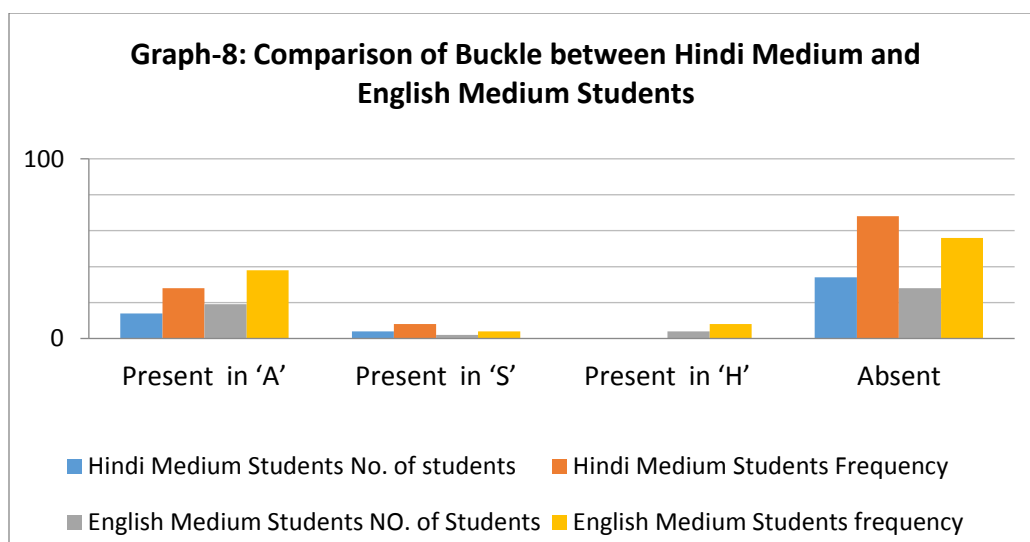
It is observed by the table that **50%** of **Hindi medium students** have **Tremor** in their handwriting although **30%** students **English Medium student** has **Tremor** in their writing.

Graph-7: Comparison of Retouching among Hindi Medium and English Medium Students

Graph:7 shows the comparison of **Retouching** among Hindi Medium Students and English Medium Students.

It is observed by the table that **80%** of **Hindi medium students** have **Retouching** in their handwriting

Although **54%** students **English Medium students** has **Retouching** their writing.

Graph-8: Comparison of Buckle between Hindi Medium and English Medium Students
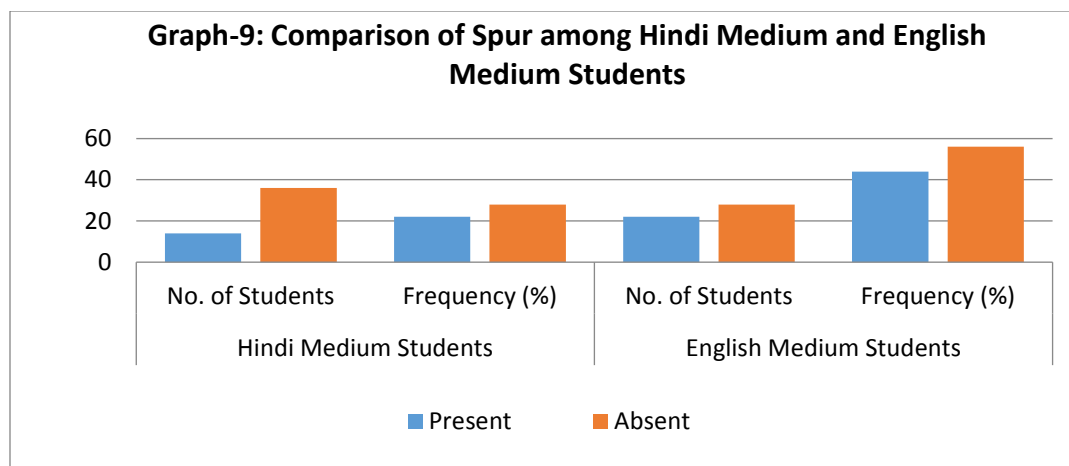

Graph:8 shows the presence and absence of the character 'Buckle' in English and Hindi Medium Students.

It is observed that in Hindi medium students, the character 'Buckle' is present in letter 'A' and 'S' in 14 students and 4 students respectively and is absent in the letter 'H'. There is the absence of the character in 34 students.

In English medium students, the same is present in letter 'A', 'S' and 'H' in 19 students, 2 students and 4 students respectively. There is the absence of the character in 28 students.

Graph-9: Comparison of Spur among Hindi Medium and English Medium Students

Graph:9 shows the comparison of presence of **Spur** among Hindi Medium Students and English Medium Students.

It is observed by the table that **22%** of **Hindi medium students** have **Spur** in their handwriting although **56%** students **English Medium student** has **Spur** in their writing.

DISCUSSION

- After analyzing the various handwriting characteristics of Hindi medium and English medium students it is observe that 16% of students of Hindi medium students having Ascending Alignment, 40% having Descending Alignment, 38% having Straight Alignment and 6% having mixed or Irregular Alignment, While 16% of students of English medium students having Ascending Alignment, 26% having Descending Alignment, 56% having Straight Alignment and 2% having Irregular Alignment.

- Similarly 44% students of Hindi medium students have indented or medium Pen pressure in handwriting and 12% having gradual pen pressure, while 28% students of English medium students having indented or 52% having medium Pen pressure in handwriting and 12% having Gradual pen pressure.

- In same manner 40% students of Hindi medium students have smooth Rhythm in handwriting and 60% having Intermittent Rhythm, while 28% students of English medium students have indented or 62% having Smooth Rhythm in handwriting and 36% having Intermittent Rhythm.

- Similarly 58% students of Hindi medium students have Obtuse Slant or 32% have Acute Slant

in handwriting and 10% having Straight Slant, while 50% students of English medium students having Obtuse Slant or 12% have Acute Slant in handwriting and 38% having Straight Slant.

- Similarly 50% students of Hindi Medium having Tremor in their handwriting while English Medium Students having 30%.in same manner 88% students of Hindi Medium having Retouching in their handwriting while English Medium Students having 46%.

- In same manner 62% students of Hindi medium have Print-Writing style, 24% having printing and 10% having cursive, While the English medium students having 32% Print-writing, 32% Printing writing style and 48% Cursive writing style.

- The various workers had also made studies to find out the characteristic features in the handwriting of individual, **Mohamed et al. [12]** studied the common characteristic features amongst Malaysian. He collected the samples from 60 individuals and find out those 28.3% respondents has Cursive writing style, 26.7% of respondents have Printing writing style and 45.0% has mixed writing style. In same manner 6.7% writer has larger letter size, 23.3% having medium and 36.7% having smaller letter size. Similarly there are 20.0% respondents having forward slant, 10.0% having backward slant and 36.7% having mixed slant. Similarly 18.3% of respondents having Horizontal Alignment, 38.3% having Ascending Alignment,11.7% having Descending Alignment and 31.7% having Mixed Alignment. And last 40.0% of respondents having Consistent word spacing and 60.0% having inconsistent word spacing in handwriting. So result of the present study is not similar with the results of **Mohamed et al. [12]**

Conclusion

The writing samples were very critically and exhaustively examined with regard to the general as well as individual characteristics features for comparison of Hindi medium student and English medium students. The findings of the present study gives important information about the various characteristics features of handwriting of Hindi medium and English medium students and following conclusions have emerged out from the present study -

➢ The Hindi medium students have more tendencies towards **Descending alignment (40%)** as compare to English medium students **(26%).** While the English medium students have more tendency towards **Straight alignment (56%)** as compare to Hindi medium students **(38%).**

➢ The Hindi medium students have more tendencies towards **Indented pen pressure (44%)** as compare to English medium students **(28%).** While the English medium students have more tendency towards **medium pen pressure (52%)** as compare to Hindi medium students **(44%).**

➢ The Hindi medium and English medium students both have more tendencies towards **Medium spacing** between **letter, word** and **lines.**

➢ The Hindi medium students are prone to **Medium writing speed (64%)** as compare to English medium students **(36%).** While the English medium students have prone to **fast writing speed (64%)** as compare to Hindi medium students **(36%).**

➢ The Hindi medium students have more tendencies towards **intermittent rhythm (60%)** as compare to English medium students **(36%).** While the English medium students have more tendency towards **smooth rhythm (62%)** as compare to Hindi medium students **(40%).**

➢ Hindi medium students and English medium students are more prone to **leftward slant (58%)** in Hindi medium and **(50%)** in English medium.

➢ The Hindi medium students have more tendencies towards **Print-Writing style (62%)** as compare to English medium students **(32%).** While the English medium students have more tendency towards **cursive style (46%)** as compare to Hindi medium students **(10%).**

➢ The Hindi medium students have **Tremor** in handwriting **(50%)** as compare to English medium students **(30%).**

➢ The Hindi medium students have **Retouching** in handwriting **(88%)** as compare to English medium students **(54%).**

➢ The English medium students have **Spur** in handwriting **(44%)** as compare to Hindi medium students **(22%).**

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