

HILLIGER ASSESSMENT GUIDELINES

Accurate analysis and interpretation of handwriting depends on correct assessment and definition of handwriting features. These Hilliger Assessment Guidelines have been produced so that candidates for B.I.G. exams may understand clearly how they should make their assessments, and how their technical work will be assessed by the examiners.

Absolute Size

To measure size: draw a straight line at the baseline of a word (or under individual MZ letters if the baseline is uneven), then draw *parallel* lines above the UZ loops and below the LZ loops. Measure the distances in between vertically *even when the letters are slanted*. Do not include the capital letters.

<u>Size Guidelines:</u>	8.6mm – 11.5mm = Medium
Less than 6mm = Very small/microscopic	11.6mm – 16mm = Large
6mm – 8.5mm = Small	More than 16mm = Very large

Zones

To measure all zones: draw a line under the MZ letters or groups of letters.

Do not draw a single straight line under the whole word when the baseline is uneven.

To measure the MZ: draw a parallel line at the top of the MZ, or each letter if necessary, and measure the distance in between vertically. Choose letters such as a, c, o, u, v etc. or the MZ parts of b, d, g, p, q, or y. *The more slanted the letters are, the more the MZ height is reduced.*

To measure the UZ: draw a line above UZ loops parallel with the top of the MZ.

To measure the LZ: draw a line below LZ loops parallel with the baseline.

In Britain the average size for each zone is about 3mm, or 3.5mm for the LZ.

However, when zones are described as 'large' or 'small' this usually means *in relation to the size of the other zones*, not the absolute size.

Slant

To measure slant: extend long downstrokes (MZ + UZ or MZ + LZ) with pencil lines. Choose single stems if possible, or draw a line through the middle of the loop. Draw a straight line that follows the baseline of the word. Place your protractor on this line to find the degree of angle (to the nearest 5°) at the point of intersection. 0° is on the right, 180° is on the left.

100° (95°-100°) = Slight L slant	90° = Upright	80° (85°-80°) = Slight R slant
110° (105°-115°) = Moderate L slant		70° (75°-65°) = Moderate R slant
120° or more = Marked L slant		60° or less = Marked R slant

Pressure

The thickness of the paper should be taken into account.

To assess pressure: run your fingers over the back of the paper. If you can easily feel ridges the pressure is heavy. On card: hold horizontally at eye level and look for grooves or indentations on the front. A thick stroke is not necessarily heavy - felt tip is usually light or medium. Medium pressure may just be felt underneath if the paper is on the thin side. If you cannot feel anything underneath the pressure may be medium if the writing looks firm and the paper is thick, but will otherwise be light. A thin stroke may look light but actually be heavy. Check for ridges on the back.

The Stroke

Stroke width may be thick, medium, thin, variable or alternately thick and thin. Consider stroke width in relation to absolute size when this is small. Note smoothness of stroke edges.

Pasty = a stroke that is thick or broad. Edges may be smooth, blurred or slightly ragged.

Sharp = a stroke that is thin or fine. Edges are smooth or clear cut.

Distinct = pressure lightening on upstrokes i.e. thicker downstrokes + thinner upstrokes.

Currency Currency = quality or fluency of the stroke. Currency is disturbed by slowness, hesitation, trembling, jerks or breaks in the stroke. Using a magnifying glass can be helpful.

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Connectedness

To assess the degree of connectedness between letters: underline connected letters.

False connections, touching letters and amendments can disguise disconnectedness.

Ignore disconnections after capital letters, i and t.

Very connected: Almost all letters connected, and sometimes words as well

Connected: 4 or more letters connected in long words + well connected elsewhere

Fairly connected: 2 or 3 letters generally connected + connected elsewhere

Half & half connected: a fairly even distribution of connected + disconnected

Fairly disconnected: 2 or 3 letters sometimes connected + disconnected elsewhere

Disconnected: Only 2 letters (or occasionally 3) connected in long words

Very disconnected: Only 2 letters occasionally connected

Note where capitals are connected, or disconnections occur after the first letter or before the last letter. Observe whether 'invisible' connecting strokes or 'air-strokes' are made smoothly.

Forms of Connection

The FOC refers to the shape of connecting strokes *within* and *between* letters.

Quick assessment:

Look at the letter n. Is the top rounded, pointed, like a 'u' or indefinite in shape?

Rounded top = arcade (n looks like n)

Rounded bottom = garland (n looks like u)

Pointed top = angle (n looks like a zig-zag or z on its side)

Squiggle = wavy line (n looks like s on its side)
or thread (straight or indefinite line)

More accurate assessment:

Look at the letters n, m and h, *and all the connecting strokes within and between letters.*

Observe carefully whether the approach to each letter is from above or below, and the shape of the connecting stroke.

Rule of Thumb: Garlands: look for rounded strokes along the baseline.

Arcades: look for arched strokes along the top of the MZ.

Arcades / Angles: look for angles along the baseline.

Angles: look for angles along the top and bottom of the MZ.

Wavy line: look for double curves.

Threads: look for neglected, illegible letters.

'Primary Thread' = a combination of three or more FOCs.

Assess which FOC appears most often then list the FOCs in order of dominance.

Style - Simplification / Elaboration

Refers to the style of the copymodel (eg. italics, cursive, printscript) also the degree of simplification / elaboration of letter forms. Note whether writing looks natural or artificial.

On a continuum: neglected – simplified – copymodel – enriched – elaborated.

Legibility

Poor: letters or words unintelligible even in context.

Acceptable/good: some letters may be illegible out of context.

Very good: every letter legible even out of context.

Width

'Width' refers to the width *within* letters in the MZ. Assess in relation to MZ height. Letters are *broad* when MZ width exceeds MZ height, or *narrow* if MZ width is less than MZ height.

To measure width: start with the letters n, u, h and extend the downstrokes. (In upright writing these lines will be vertical, but for slanted letters they will not be). For other letters such as a, b, c, d, e, g, o, p etc. draw parallel lines at the sides of the letter and measure the distance in between.

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Letter Spacing / Secondary Width

Secondary width refers to the distance *between* letters i.e. the letter spacing. Assess in relation to MZ height. Letter spacing is *wide* if the distance between the letters exceeds MZ height, or *narrow* if the distance between the letters is less than MZ height. The term 'secondary width' is commonly used to describe letter spacing that is *wide* in relation to the *width* of the MZ.

Distance between downstrokes

In order to assess whether the 'distance between downstrokes' is regular, you need to consider whether the width is consistent, whether the letter spacing is consistent, and whether the width of the letters is generally the same as the letter spacing. Copymodel prescribes even spacing *within* and *between* letters. Consider the two downstrokes of letters such as h, n, u; the two sides of letters such as a, b, p; or the single downstroke of letters such as i, l, or t. The width of letters and the letter spacing may both be regular, but if, for example, *the letters are broad but the letter spacing is narrow, the 'distance between downstrokes' will be irregular.*

Word Spacing

To measure word spacing: draw vertical lines to mark where one word ends and the next begins, and measure the distance in between. Average word spacing is the width of one or two letters.

Line Spacing

To measure line spacing: at the left margin draw a short horizontal line at the baseline. Measure the distance from line to line. *Do the same at the ends of the lines.* If the distances are very regular suspect the use of guidelines (usually 9mm). The line spacing should be in proportion to the size of the writing.

- Narrow: the LZ touches or nearly touches the line below.
- Very narrow: the LZ tangles with the line below, or even with the line below that.
- Average: the writing size and line spacing look well balanced.
- Wide: there is clear space between the LZ of one line and the UZ of the next.
- Very wide: another line of writing could have been inserted between the lines.

Baseline Direction

To assess line *direction*: butt a ruler at the left edge of the paper under the baseline .

Rising: the end of the line is higher than the beginning.

Falling: the end of the line is lower than the beginning.

Convex: the line rises then falls, making an arch.

Concave: the line falls then rises, making a saucer shape.

Tiling up: each word rises, and starts lower than the end of the previous word.

Tiling down: each word falls, and starts higher than the end of the previous word.

To assess the *stability* of the baselines: hold the paper horizontally at eye level and look along the lines, and/or *follow the undulation of the baseline with a freehand pencil line.*

Baselines may be rigid, straight, flexible, undulating, erratic or a combination.

Margins

Assess the size of the margins *in relation to the size of the paper.*

On A4 paper an average left margin is about 2.5 cms. / 1 inch. Less than this is narrow.

On smaller paper an average LM will be less than this. A right margin is considered to be wide if the first word of one line could have been fitted on to the line above.

Assess the shape of the margins by following the edges with a freehand pencil line.

A left margin may be described as 'straight' when it is well-maintained but widens / narrows.

'Convex' LM: space widens then narrows again. 'Concave' LM: space narrows then widens.

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Fullness / Leanness

Refers to whether letters or parts of letters are made more curved or straight than the copy model, and take up more or less space. Most easily seen in UZ and LZ loops / stems.
Full: letter parts that should be straight are made curved, so appear ample, plump or full.
Lean: letter parts that should be curved are made straight, so appear meagre, thin or lean.

PPI

Assess for size in relation to the UZ and other capitals, and form in relation capital I.
Also for similarity in slant / pressure / spacing with the rest of the writing.

Signature

Assess for similarity in style / size / slant / pressure etc. Also the legibility, placing to L or R, distance from the text, underlining, full stop etc.

Capitals

Assess size in relation to UZ, also width, elaboration, whether connected to next letter etc.

All in Capitals

Assess as MZ dominant. Look for originality in slant, form, connections, extensions etc.

Right / Left Tendencies

Look at i dots, t bars, endstrokes, slant variations on individual letters or between zones. Also:
Right: 'roofing' or 'braced' strokes, loops eliminated, LZ turned R, caps extended R, open o/a
Left: starting strokes, ties, ballooning loops, looped d/t or o/a, spirals, elaboration, cradles LZ.

Horizontal Tension

Assess strength of focus towards the right. H.T. is reduced by large size, tall UZ/LZ, disconnectedness, irregularity, undulating baseline, L tendencies, large loops, elaboration etc.

Rhythm

Assess intuitively from the interplay of the writing features. Rhythm is on a continuum: (arrhythmic) rigid – controlled – harmonious (rhythmic) – impulsive – erratic (arrhythmic)

Regularity

Assess from 5 key features:

MZ height, slant, pressure, distance between downstrokes and line spacing.

See notes above for assessing these.

Originality

Refers to all the ways that the copy model has been altered, but for originality to be positive good legibility and appearance should be maintained.

Layout

Refers to the whole layout of the writing, particularly the symmetry of the arrangement and the clarity and balance of the spacing with the writing.

Speed

Overall speed is assessed from the combined speed of the following movements:

slant, pressure, currency, connectedness, FOC, simplification, width, line spacing, line direction, left margin, i/t, endstrokes and regularity. See Speed Test Notes below.

Form Standard Assess from Originality, Layout and Speed.

The F.S. determines how positively movements should be interpreted.

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SPEED TEST NOTES

Slant For speed, ignore all variations within a L slant, or within a R slant.

		<u>Quick</u>	<u>Slow</u>
All R strokes	100% quick	1	-
Mostly R strokes	75% quick + 25% slow	0.75	0.25
All upright strokes	50% quick + 50% slow	0.50	0.50
Varying from L to R	50% quick + 50% slow	0.50	0.50
Mostly L strokes	25% quick + 75% slow	0.25	0.75
All L strokes	100% slow	-	1

		<u>Quick</u>	<u>Slow</u>
Pressure			
Light throughout	100% quick	1	-
Fairly light	75% quick + 25% slow	0.75	0.25
Medium	50% quick + 50% slow	0.50	0.50
Normal distinct	50% quick + 50% slow	0.50	0.50
Fairly heavy	25% quick + 75% slow	0.25	0.75
Heavy throughout	100% slow	-	1
Variable	50% quick + 50% slow if medium but variable, or variable heavy to light 25% quick + 75% slow if generally heavy but variable 75% quick + 25% slow if generally light but variable		

		<u>Quick</u>	<u>Slow</u>
Currency			
All 'elastic', fluent strokes	100% quick	1	-
A few jerks	75% quick + 25% slow	0.75	0.25
Some jerks & breaks	50% quick + 50% slow	0.50	0.50
or	25% quick + 75% slow	0.25	0.75
All tremulous or jerky	100% slow	-	1

		<u>Quick</u>	<u>Slow</u>
Connectedness			
Connected or v. connected	100% quick	1	-
Fairly connected	75% quick + 25% slow	0.75	0.25
Partly connected (half + half)	50% quick + 50% slow	0.50	0.50
Fairly disconnected	25% quick + 75% slow	0.25	0.75
Disconnected	100% slow	-	1

Forms of Connection

Garlands, Wavy line and Threads are quick. Arcades, Angles and Copymodel are slow.

In mixed FOCs assess the speed from the proportions of each.

<u>Eg.</u>		<u>Quick</u>	<u>Slow</u>
Garlands, wavy line, threads	100% quick	1	-
Garlands, threads, arcades	75% quick + 25% slow	0.75	0.25
Angles, garlands	50% quick + 50% slow	0.50	0.50
Arcades, angles, garlands	25% quick + 75% slow	0.25	0.75
Copymodel, arcades, angles	100% slow	-	1

		<u>Quick</u>	<u>Slow</u>
Simplification / Elaboration			
All simplified/neglected	100% quick	1	-
Mostly simplified/neglected	75% quick + 25% slow	0.75	0.25
Copymodel	50% + 50%	0.50	0.50
Simplified + elaborated	50% + 50%	0.50	0.50
Mostly elaborated	25% quick + 75% slow	0.25	0.75
All elaborated	100% slow	-	1

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Width		<u>Quick</u>	<u>Slow</u>
Broad throughout	100% quick	1	-
Mostly broad	75% quick + 25% slow	0.75	0.25
Average/copy model	50% quick + 50% slow	0.50	0.50
Mostly narrow	25% quick + 75% slow	0.25	0.75
Narrow throughout	100% slow	-	1

Line Spacing		<u>Quick</u>	<u>Slow</u>
All narrow or tangling	100% quick	1	-
Fairly close, occasional touching	75% q + 25% slow	0.75	0.25
Average/well-balanced or variable	50% q + 50% slow	0.50	0.50
Fairly wide & clear	25% q + 75% slow	0.25	0.75
Wide or very wide	100% slow	-	1

Line Direction		<u>Quick</u>	<u>Slow</u>
All rising	100% quick	1	-
Mostly rising	75% quick + 25% slow	0.75	0.25
All level	50% quick + 50% slow	0.50	0.50
Concave, convex, variable	50% quick + 50% slow	0.50	0.50
Mostly falling	25% quick + 75% slow	0.25	0.75
All falling	100% slow	-	1

Very undulating or very straight (ruler) lines will reduce the speed further.

Left Margin		<u>Quick</u>	<u>Slow</u>
Wide (N.B. paper size)	100% quick	1	-
Average but widening	75% quick + 25% slow	0.75	0.25
Average	50% quick + 50% slow	0.50	0.50
Zig-zag, concave, convex	50% quick + 50% slow	0.50	0.50
Average but narrowing	25% quick + 75% slow	0.25	0.75
Narrow (N.B. paper size)	25% quick + 75% slow	0.25	0.75
Very narrow or none	100% slow	-	1

i Dots / t Bars

i dots directly above stem or on L are slow; to the R / missing are quick.

t bars crossing stem, *attached to stem*, or on L are slow; to the R / missing are quick.

		<u>Quick</u>	<u>Slow</u>
All dots/bars detached, on R or missing	100% quick	1	-
Most dots/bars detached, on R or missing	75% q + 25% slow	0.75	0.25
Mixture of positions	50% q + 50% slow	0.50	0.50
Most dots/bars on L, directly above/attached	25% q + 75% slow	0.25	0.75
All dots/bars on L, directly above/attached	100% slow	-	1

Endstrokes

Ends finishing to the R are quick. Ends cut short or turned L are slow.

		<u>Quick</u>	<u>Slow</u>
All ends turned to the R	100% quick	1	-
Mostly turned to the R	75% quick + 25% slow	0.75	0.25
Normal / copy model	50% quick + 50% slow	0.50	0.50
Mixed R, L & short	50% quick + 50% slow	0.50	0.50
Mostly turned L or short	25% quick + 75% slow	0.25	0.75
All turned L or short	100% slow	-	1

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Regularity

Regularity is assessed from 5 key features: MZ height, slant of long downstrokes, MZ pressure, distance between downstrokes, distance between lines.

Regularity is slow, irregularity is quick.

		<u>Quick</u>	<u>Slow</u>
5 features irregular	100% quick	1	-
4 or 3 features irreg. + 1 or 2 features reg.	75% quick + 25% slow	0.75	0.25
4 or 3 features reg. + 1 or 2 features irreg.	25% quick + 75% slow	0.25	0.75
5 features regular	100% slow	-	1

NB. It is rare for writing to be 100% regular.

In practice most marks are likely to be 75% + 25% or vice versa.

Occasionally quick and slow aspects may be finely balanced and could be represented by 50% quick + 50% slow

3 features slightly irregular + 2 features very regular *or*

3 features fairly regular + 2 features very irregular *possibly* 50% quick + 50% slow

Any queries on matters arising from these guidelines should be addressed to the Education Officer.

Aldona Fiszer B.I.G. Education Officer, on behalf of the Examination Board