

HILLIGER ASSESSMENT GUIDELINES (H.A.G.)

Purpose

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.

First Impression

Note your first, immediate response or reaction to the writing, whether to the general appearance, a sense of the personality or what stands out in the writing.

Rhythm

Assess intuitively from the interplay of the writing features. Rhythm is on a continuum:

rigid – stilted – controlled – harmonious – lively – impulsive – erratic

Too much or too little control leads to arrhythmic writing, whether slight or extreme.

Absolute Size

To measure size: draw a straight line at the baseline of a word (following the rise or fall) then draw a parallel line above the tallest UZ loop or stem and below the longest LZ loop or stem. Measure the distance in between vertically *even when the letters are slanted*.

Do not include the capital letters.

Size Guidelines

less than 6mm = very small/microscopic

6mm - 8.5mm = small

8.6mm - 11.5mm = medium

11.6mm - 16mm = large

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 or stems parallel with the top of the MZ.

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

Zones are assessed as large or small *in relation to each other*. Zones often vary but may be fairly equal (balanced) or one zone may be clearly dominant or small.

Slant

To measure slant: extend the 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.

For rounded LZ forms extend the straight downstroke if there is one.

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.

N.B. Variations to L or R that occur only in the LZ and greatly increase the range of measurements may best be described as *L or R tendencies* in the LZ.

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

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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 can't 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 appear light but actually be heavy. Check for ridges on the back.

The Stroke

The main aspects to consider are the *thickness* or *width* of the stroke and its *edges*.

Consider stroke width in relation to absolute size when this is small.

Stroke width may be thick, thin, alternately thick and thin, variable or just *medium*.

Stroke edges may be clean, smooth, blurred, ragged or a mixture.

The main types of stroke are: pasty, sharp or distinct but *many variations are possible*.

Pasty a stroke that is thick or broad. Edges may be smooth, blurred or 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.
Stroke is closely related to Currency.

Currency

'Currency' refers to the 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.

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 (after capitals is copymodel).

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 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 the first or last letter is frequently disconnected *in a connected script*. Also, whether 'air-strokes' that connect letters invisibly are made smoothly.

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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 a letter is from above or below and the shape of the connecting stroke. Also, whether the FOCs *between letters* are different from those in the *letter forms* e.g., cursive copymodel has arcade letters + garland connections.

Rule of thumb

Garlands	look for rounded (concave) strokes along the baseline (saucers)
Arcades	look for rounded (convex) strokes along the top of the MZ (arches)
Arcades/Angles	look for angles along the baseline
Angles	look for angles along the top and bottom of the MZ (zigzags)
Wavy lines	look for double curves (s on its side)
Threads	look for neglected, illegible letters.

Mixed FOC (Primary Thread) is a combination of three or more FOCs.

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

Style: Simplification / Elaboration

'Style' refers to the style of the copymodel (e.g. italics, cursive, printscript) also the degree of simplification / elaboration of letter forms. Note whether the writing looks natural or artificial.

Style is 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.

Letter Width (also referred to as '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. Extend the downstrokes and measure the distance in between. (In upright writing these lines will be vertical, but for slanted letters they will not be). Particular letters *may be wider or narrower than others*, so also measure letters such as a, b, c, d, e, g, o, p etc. by drawing parallel lines at the sides of the MZ.

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Letter Spacing

Assess in relation to MZ height. Letter spacing is wide if the distance between the letters exceeds MZ height or narrow / close if the distance between the letters is less than MZ height. Also note whether the letter spacing is *similar to the width* of the letters or not.

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. Word spacing is *wide* if the space is more than the width of two letters, *narrow* or *close* if the space tends to be one letter or less.

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 /close	the LZ touches or nearly touches the line below
Very narrow /close	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 to the left edge of the paper under the baseline and/or measure the beginning and end of lines from the top or bottom of the page.

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.* Alternatively, draw some straight lines across the page or place an acetate or graph paper over the whole page to see both line direction and stability.

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

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Margins

Assess the size of the margins in relation to the size of the paper. On A4 paper an average left margin is approximately 2.5cms./1 inch, but on smaller paper will be less than this.

Assess the size of the left margin by taking measurements from the paper edge.

A left margin is wide if it is more than average, narrow if less than average or very narrow if close to the paper edge. A right margin is considered wide if the first word of one line could often have been fitted on to the line above.

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

Margins may be straight, widening, narrowing, convex, concave, well-controlled, uneven, zigzag or a combination . A right margin will normally be irregular.

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

Fullness / Leanness

This refers to whether letters or letter parts are more curved or straight than the copy model and take up more or less space. Most easily seen in UZ or LZ loops/stems but also in the MZ.

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 (Personal Pronoun 'I')

Assess for size in relation to the UZ and other capitals, and form in relation to 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.

i Dots / t Bars

Look at the size and shape and height of the stem.

Consider the location of the i-dot (above, on the left or right or missing), shape.

Consider the location of the t-bar (crossing, attached, detached), length, shape, pressure

Endstrokes (also referred to as 'ends')

Assess in terms of whether endstrokes are average, extended or cut short.

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Right / Left Tendencies

Look at margins, i dots, t bars, starting /ending strokes, slant variations on particular letters or between zones etc.

Right tends extended ends, roofing t bars, braced strokes, loops eliminated, open o/a, LZ turned R, letters falling forward etc.

Left tends starting strokes, ties, looped d/t or o/a, cradles LZ, Greek ∂ , elaboration, spirals, loops ballooning L etc.

Horizontal Tension

Assess strength of forward movement or drive to the right. HT is reduced by large size, tall UZ / LZ, disconnectedness, irregularity, undulating baselines, L tendencies, elaboration etc.

Regularity

Assess from 5 movements:

- MZ height
- slant of long downstrokes
- MZ pressure
- distance between downstrokes
- distance between lines

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*.

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 further on .

Originality

This refers to all the ways that the copymodel has been altered, but for originality to be positive, good legibility and appearance should be maintained.

Layout

This 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.

Form Standard

Assess from the speed, originality and layout.

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

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SPEED TEST NOTES

Slant

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			
<i>or</i> varying 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

Pressure

		<u>Quick</u>	<u>Slow</u>
Light throughout	100% quick	1	-
Fairly light	75% quick + 25% slow	0.75	0.25
Medium or 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:			
Generally light but variable	75% quick + 25% slow	0.75	0.25
Gen. medium but variable			
<i>or</i> varying light to heavy	50% quick + 50% slow	0.50	0.50
Gen. heavy but variable	25% quick + 75% slow	0.25	0.75

Currency

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

Connectedness

		<u>Quick</u>	<u>Slow</u>
Connected /very 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

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Forms of Connection

Garlands, Wavy line and Threads are quick. Arcades, Angles and Copymodel are slow. With mixed FOCs assess the speed from the proportions of each.

<u>E.g.</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

Simplification / Elaboration

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

Width

		<u>Quick</u>	<u>Slow</u>
Broad throughout	100% quick	1	-
Mostly broad	75% quick + 25% slow	0.75	0.25
Average /copymodel	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

Very undulating, very straight, or lines written on a ruler will reduce the speed further.

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

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Left Margin

The size of the paper should be taken into account. Ignore paragraph indents.

		<u>Quick</u>	<u>Slow</u>
Wide	100% quick	1	-
Average but widening	75% quick + 25% slow	0.75	0.25
Average <i>or</i>			
zig-zag, concave, convex	50% quick + 50% slow	0.50	0.50
Average but narrowing	25% quick + 75% slow	0.25	0.75
Narrow	25% quick + 75% slow	0.25	0.75
Very narrow or none	100% slow	-	1

i Dots / t Bars

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

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

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

Endstrokes

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

		<u>Quick</u>	<u>Slow</u>
All ends extended R	100% quick	1	-
Most ends extended R	75% quick + 25% slow	0.75	0.25
Average <i>or</i>			
mixed L /short /R	50% quick + 50% slow	0.50	0.50
Most ends L or short	25% quick + 75% slow	0.25	0.75
All ends L or short	100% slow	-	1

Regularity

Regularity is slow, irregularity is quick.

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

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

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

Queries about any of these guidelines should be addressed to the Education Officer.