

# PI COGNTIVE ASSESSMENT<sup>TM</sup> SCALED SCORE

INTRODUCTION TO THE SCALED SCORE INCL. THE SCIENCE BEHIND IT AND HOW TO GIVE FEEDBACK TO ASSESSMENT TAKERS



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### THE SCALED SCORE

#### THE SCALED SCORE



SCALED SCORE DEEP DIVE

#### MANUAL JOB TARGET

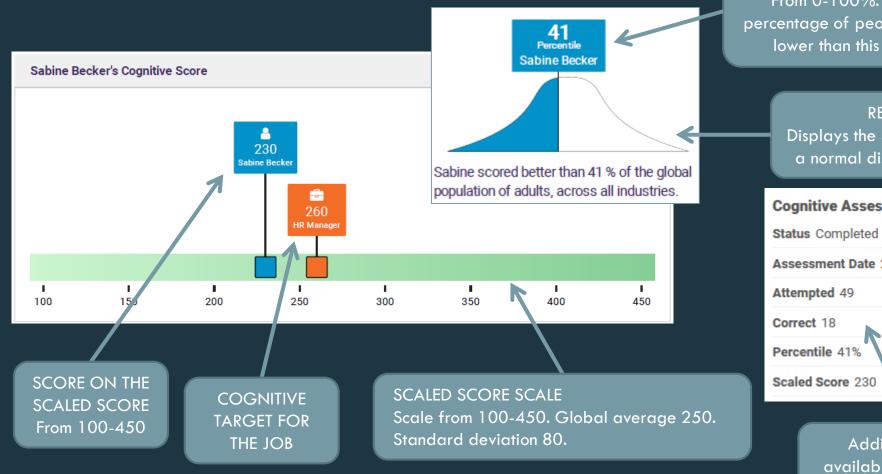
FEEDBACK MODEL

FEEDBACK

CONTACT DIRECTORY

In PI Software, the results from the PI Cognitive Assessment<sup>TM</sup> are presented on a scale from 100 to 450 with an average of 250.

The Scaled Score is a representation of the no. of correct answers. The higher the CA Scaled Score, the higher the expected cognitive capacity, and the more cognitive stimulation is required to engage the individual.



#### SCALED SCORE

#### SCALED SCORE VS. RAW SCORE

PERCENTILE RANK From 0-100%. Tells you the percentage of people who scored lower than this respondent

#### RESULT

Displays the Scaled Score on a normal distribution curve

#### **Cognitive Assessment**

Assessment Date 2018 December 6

Additional info is available in the ADMIN system PI Software.

Scaled	Raw	
Score	Score	Percentile
100	1	1%
100	2	1%
100	3	1%
100	4	1%
100	5	1%
110	6	2%
120	7	3%
130	8	4%
140	9	6%
150	10	8%
160	11	10%
170	12	14%
180	13	17%
190	14	21%
200	15	26%
210	16	31%
220	17	36%
230	18	41%
240	19	46%
250	20	54%
260	21	57%
270	22	61%
280	23	66%
290	24	70%
300	25	74%

Scaled	Raw	
Score	Score	Percentile
310	26	77%
320	27	81%
330	28	83%
340	29	86%
350	30	88%
360	31	90%
370	32	92%
380	33	93%
390	34	94%
400	35	95%
410	36	96%
420	37	97%
430	38	98%
440	39	98%
450	40	98%
450	41	99%
450	42	99%
450	43	99%
450	44	99%
450	45	99%
450	46	99%
450	47	99%
450	48	99%
450	49	99%
450	50	99%

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The Scaled Score is designed and introduced to help support the validity of the interpretation of the result, which improves feedback to assessment takers. Adding the scaled score design:

- Ensures that the result does not reflect results from other well-known assessments
- Ensures that the result does not have a zero score, which can be misinterpreted
- Removes focus from no. of correctly answered questions and sub scores
- Keeps focus on the amount of cognitive ability a person has compared to the reference group

### LEGACY INTERPRETATION - Raw Score/no. of correct

Previously the no. of correct answers (also known as the raw score) was used to report the result, but this has frequently caused problems with the interpretation. For example, other well-known cognitive assessment providers apply a 50-item form and report a raw score. The results on the PI CA and other assessments cannot and should not be compared. Furthermore, zero means an absence of quantity (generally speaking) but it does not make sense to interpret zero correct answers on the PI CA as evidence that the respondent has no cognitive ability whatsoever.

#### **NEW INTERPREATION – Scaled Score and Percentile**

With the addition of a Scaled Score you now have a scale that runs from 100-450 points, with a global mean of 250 and a standard deviation of 80. Scores are reported in 10-points increments. This allows you to frame the inferences as the amount of cognitive ability a person has, rather than framing inferences as the number of questions answered correctly. In addition to the Scaled Score you also have a percentile, making it easy for you to explain the result to the respondent.

SCALED SCORE 100 100 100 100 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 RAW SCORE 1% 2% 3% 4% 6% 8% 10% 14% 17% 21% 26% 31% 36% 41% 46% 54% 57% 61% 66% 70% 74% 77% 81% 8 PERCENTILE

#### DEEP DIVE

330	340	350	360	370	380	390	400	410	420	430	440	450	450	450	450	450	450	450	450	450	450	450
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
83%	86%	88%	90%	92%	93%	94%	95%	96%	97%	98%	98%	98%	99%	99%	99%	99%	99%	99%	99%	99%	99%	99%

### COGNITIVE JOB TARGET - MANUAL

#### THE SCALED SCORE

SCALED SCORE DEEP DIVE





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IF YOU DECIDE TO DETERMINE THE COGNITIVE TARGET MANUALLY USE THE PROCESS DESCRIBED BELOW

250 (average) is your starting point.

- 1. Ask yourself: How complex is the job? High complexity = Aim for higher than average: Low Complexity = Lower than average.
- 2. You may decide to adjust the target range ref. the three boxes to the right.
- 3. If the job is a manager or directorlevel role, consider adding points to the target range.
- If the position is executive-level (VP or 4. above) consider adding additional points to the target range.



Steeper learning curve

Better at problem-solving

Better at transferring job knowledge

Better at combining and selecting relevant information

Better at handling numerous and various activities simultaneously

### *HUMANOSTICS*®

WE RECOMMEND USING JOB ASSESSMENT TO SET THE COGNITIVE JOB TARGET

#### **Consider LOWERING your target if:**

The work environment is very stable with few unexpected situations or changing demands. The job does not require the candidate to learn new information, is very tactical with heavy routine and repetition, doesn't require working with memorisation, thinking strategically, or long-term planning.

#### Keep the target if:

The work environment is relatively stable but changes are occurring that require adaptability and learning of new information. The job tends to balance routine and novelty in tasks, requiring some work with analysing/understanding data, a mix of tactical, strategic thinking, and planning.

#### Consider RAISING the targee if:

The job requires the need for constant and rapid learning of new information; the ability to quickly "figure things out" with little structure or guidance; tends to have very little routine or repetition, requires mastery of analysing/understanding data; involves complex problem solving, and long-term strategic planning. The work environment is changes constantly and will often require adaptation to changing demands and ambiguity.





### FEEDBACK MODEL

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5-STEP FEEDBACK MODEL – KEEP IT SIMPLE

#### Step |

INITIATE

etc.

the feedback with: How was

the experience? What was

your strategy? Asking these

disturbances or the like are

very likely to be mentioned

assessment taker reacts to

approached the assignment

here. It also allows for a

discussion of how the

time pressure, how they

questions tells you if you

can trust the result, as

Step 2

Step 3

#### PRESENT

the result. Don't hesitate – the assessment taker is interested in the result! Tell the candidate the percentile (you scored as well as or better than x%). You can explain the Scaled Score scale and tell the candidate the amount of cognitive capacity relative to the reference group.

If preferred you can elaborate by the number of questions answered and the no. of correct.

#### PROVIDE

a short summary of what the assessment measures. Pl Cognitive Assessment measures learning ability and reflects how fast an individual will obtain the necessary knowledge in the job to successfully master the job.

It tells you how well the individual handles complexity and deals with decision-making based on complex information. Problem solving and adjustment abilities are also important aspects of job success measured by the assessment.

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### MAKE INTERNAL GUIDELINES ABOUT HOW YOUR COMPANY SHARES RESULTS/REPORTS

#### Step 4

#### Step 5

#### COMPARE

the result to the reference group. The easiest way is to use the percentile. Another way to present a result is to say if the score is in the upper or lower 50% compared to the global norm. Explain that very few people respond to all 50 questions. (on average 28)

How to deliver a below average result? If a candidate's score is below average, it is possible to use a different approach than the upper/lower 50%. We suggest you use phrases from the next slide.

#### **EXPLAIN**

how the PI Cognitive Assessment Scaled Score is just one of several factors taken into account. The score is never to be considered in isolation, but as a part of a holistic evaluation including personality, experience, skills, motivation, values, cultural fit etc.

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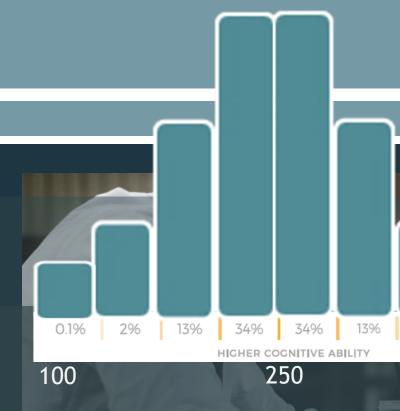
You can choose to translate the CA Scaled Score into words by using phrases like the ones presented below.

The 'Tips' sections are for internal reference.

#### 100-210 (BELOW AVERAGE)

People with lower scores are likely to adapt better to jobs and environments which match their experience, knowledge and skills. They take more time than others to acquire new knowledge and to familiarise themselves with new tasks or changes in the environment. They perform well in habitual tasks and can solve familiar problems of less complexity and problems that do not require abstract thinking. They can handle variety in the job but need time to absorb new knowledge and/or to adapt to new situations.

Tip: Understand how much knowledge and experience is required for the individual to be able to overcome and handle new problems independently. Allow gaining new skills with experience and time.



### 220-280 (AROUND AVERAGE)

People with average scores are likely to be able to adapt to a changing environment with a certain degree of variety. They can handle operational and specialised tasks requiring a certain amount of knowledge and complexity. They are expected to learn quite quickly and are suited for jobs that require a relatively fast learning capability and comprehension of new situations. They can process complex problems/challenges in the job at an average pace and will be able to handle and process tasks simultaneously. Tip: Provide an environment that leaves room for development as the individual becomes acquainted to the role/tasks.

2%

0.1%

450

#### 290-450 (ABOVE AVERAGE)

People with higher scores can be expected to be capable of acquiring large amounts of new and complex knowledge at high pace and to understand the broad and deep implications of changes in a job content and environment. They react very quickly to stimuli and changes and adapt very well to new conditions. They can handle a great deal of complexity in the job and are expected to have a very steep learning curve. They can process complex problems/challenges in the job at high pace and will be able to handle and process numerous tasks simultaneously.

Tip: People with higher CA scores tend to enjoy complex assignments/tasks and need a challenging environment to keep their motivation high.

## QUESTIONS? CONTACT THE HUMANOSTICS TEAM



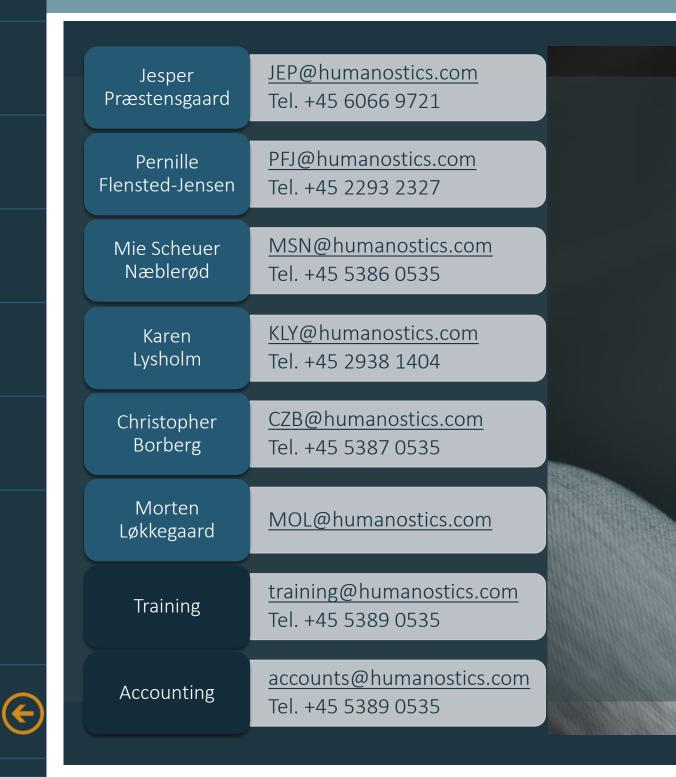
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WE ARE HERE TO HELP - DO NOT HESITATE TO REACH OUT



