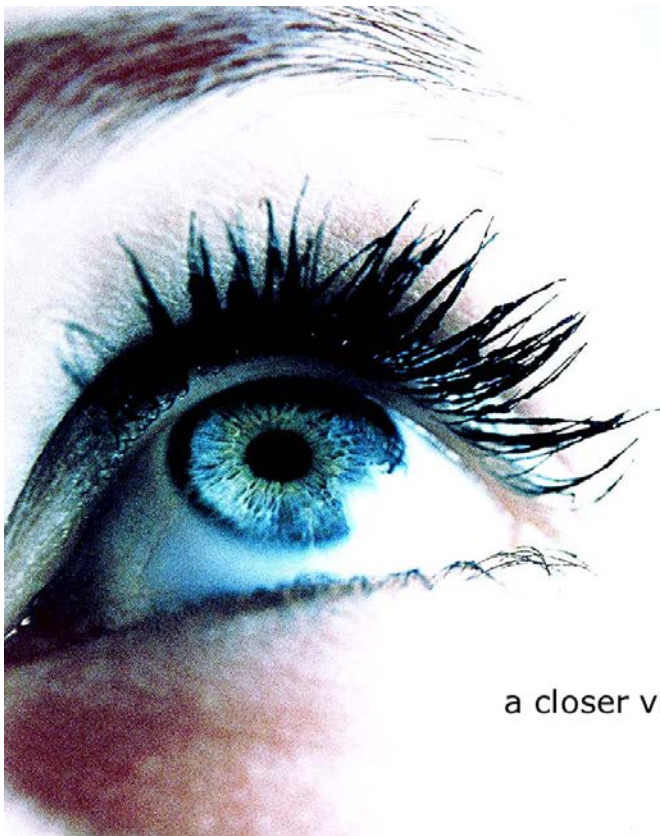




Whitepaper

2014-06-17



tools for talents
humanlogix

a closer view on people performance

www.humanlogix.com

humanlogix ag

multergasse 26
CH-9000 st.gallen

fon +41 (0) 79 226 44 29 www.humanlogix.com
contact@humanlogix.com

Content

1	Tool Suite - <i>tools4talents</i>	3
2	Short description of hx profiler.....	3
3	Product Suite.....	4
3.1	Profiler for different working areas.....	4
3.2	Scalable to numbers of behavioural dimensions of interest	4
3.3	Multilingual.....	5
4	Making use of humanlogix profiler.....	6
4.1	Recruitment.....	6
4.2	Staff deployment.....	7
4.3	Team Design	7
4.4	Career Management	7
4.5	Development and Coaching	8
4.6	Talent Management	8
5	Storyboard with realistic cases.....	10
6	Behavioural Model.....	11
7	Assessment	12
8	Individual reports.....	13
8.1	Behavioural Overview	13
8.2	Behavioural attributes.....	14
8.3	Concept behind behavioural attributes	15
8.4	Cockpit views.....	17
8.5	Experience, Qualification and Interest	17
8.6	Tasks.....	18
9	Discussing the basic method	20
9.1	General comments on adapting the SJT to the purpose of humanlogix	20
9.2	Scoring	21
9.3	Content Validity	21
9.4	Criterion Validity	22
9.5	Face Validity.....	23
9.6	Predictive Validity.....	23
9.7	Construct Validity	24
9.8	Reliability	25
9.9	Further Quality Features.....	25
10	Development Partners.....	26
11	Further information and contact	26

1 Tool Suite - *tools4talents*

Since 2001 humanlogix has developed modern, high-performance online tools to support Human Resources selection, evaluation and development. The tool suite consists of different online tools to identify behavioural patterns and match them with the company's needs and cultural settings.

Humanlogix tools4talents was validated and proofed by the scientific community and in real business practice. It was one of the winning online applications 2005 rated by Austrian authorities.

2 Short description of hx profiler

Human behaviour is one of the most complex phenomena because it is a mixture of different, sometimes contradicting attributes. In consideration of this complexity, humanlogix has developed a way to present behavioural patterns that describe the individuality of a person as a personal "behavioural pattern".

Within the field of on-line assessments humanlogix profiler belongs to the category of *Situational Judgement Tests*, which ask the candidate in realistic, hypothetical situations and scenarios to judge four different options on a Likert-Scale. This way humanlogix profiler is able to determine behavioural tendencies, assessing how an individual will behave in a certain situation.

The profiler is a comprehensive **on-line web-assessment (Situational Judgement Test)** based on a realistic management case adaptable to different industries with day to day management situations. hx-profiler is able to determine behavioural tendencies, assessing how an individual will behave in a certain situation. hx-profiler may be used to support both the selection and development of talents in companies and institutions.

In terms of **talent recruitment** the hx-profiler functionality has been used for the screening of a large number of candidates to match predefined behavioural dimensions of particular job positions. This helps senior management to potentially reduce the significant resources required as well as costs associated with misfit problems arising from hiring decisions.

In terms of **talent development** the tool allows for targeted coaching interventions to promote self-development through the individualised assessment report produced. hx-profiler is a unique assessment instrument in the market as it incorporates a wide variety of practical short cases that reflect the daily operational challenges.

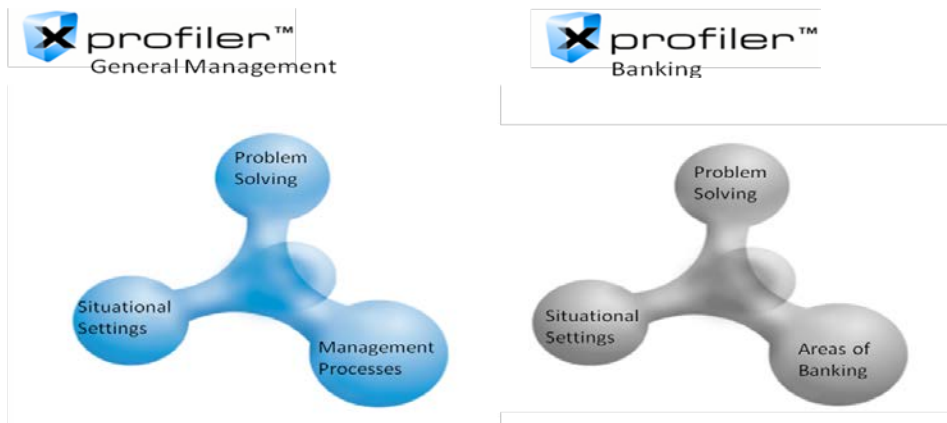
For **university under- and post-graduates**, who are interested in pursuing a business career in banking and finance or general management hx-profiler offers invaluable insights to better understand own individual behavioural aspects facilitating better decision making in choosing the most suitable career path from front to back office.

3 Product Suite

3.1 Profiler for different working areas

Humanlogix has developed various online-assessments:

- hx Banking and Finance
- hx General Management.



All hx-profilers combine work related tasks (Management or Banking) with general abilities (problem solving) and situational settings. Thus hx-profilers provide not only realistic work settings but also high validity: *“Combining a work sample test with general abilities (problem solving) and a personality profile would serve as a strong predictor of future work performance. Whilst we can add each of the validities together (.54 and .40), you will get incremental validity that would in all probability reach into the .70 area.”* Rob McKay, Managing Director of AssessSystems Aust/NZ Ltd.

3.2 Scalable to numbers of behavioural dimensions of interest

Humanlogix has introduced a set of 10 behavioural dimensions related to different job requirements. For example hx-profiler in Banking uses a behavioural model, which is divided into four main areas (Leadership, Problem Solving, Change and People) and subdivided into 10 dimensions. Evaluating all 10 dimensions in six situational settings (micro cases) each means that the candidate is asked to work through 60 cases, which takes about two hours time.

As this long version might not be suitable for all assessment requirements, clients may decide to take a shorter version with only five dimensions, which is suitable for Banking Professionals.

Clients have a choice between

Banking Professional Version with 5 dimensions or

Senior Bankers Version with 10 dimensions.



Banking Professional
Senior Banker with leadership

© humanlogix



Chart 1. Behavioural model of hx-profiler Banking

3.3 Multilingual

All hx-profilers are currently available in English and Chinese. Clients may choose for every employee, which language applies.

Scalable and multilingual for flexible use

4 Making use of humanlogix profiler

Humanlogix was designed to serve as a powerful instrument in modern Human Capital Management:

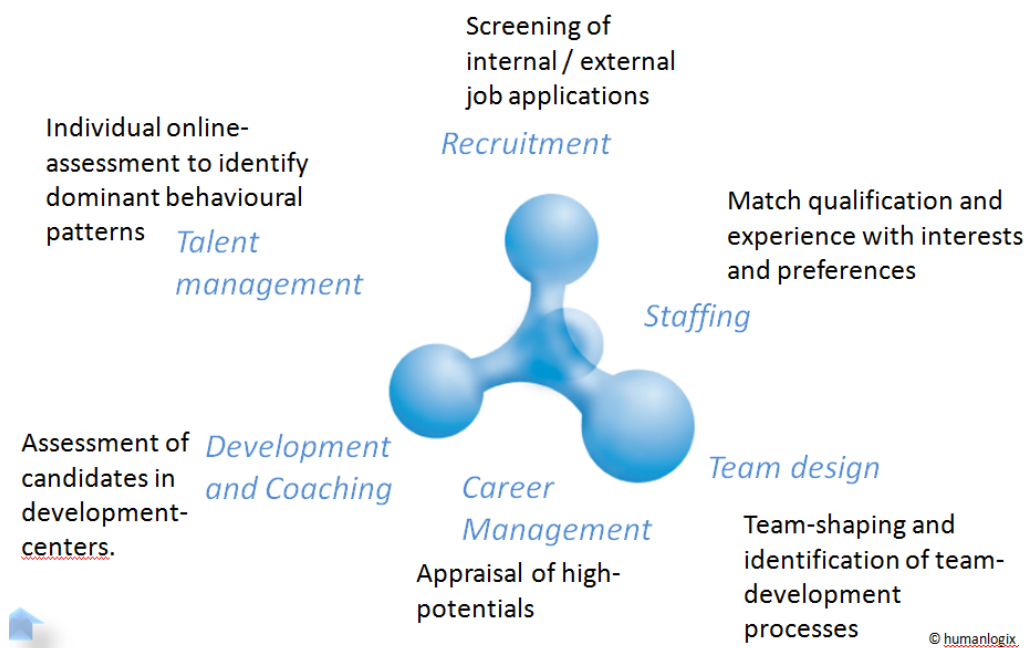


Chart 2: Use cases for hx-profiler

4.1 Recruitment

One of the main applications of humanlogix is using the profiler as a pre-assessment in recruiting situations. Many recruitment consultants and recruiting managers conduct interviews. But few optimise the selection process. Hx-profiler helps companies to optimise their selection either by using the profiler as a pre-assessment to select candidates, who do match the job int heir behavioural attitudes or by giving relevant extra information to discuss in the interview.

Appropriately built work samples have a predictive validity of around 0.5, in combination with interviews or other instruments even higher. The result is a robust and diverse selection process.

Enhancing the professional selection process with high predictive validity

Scalable pre-assessments from 1-1000 candidates help to save time and costs in recruitment processes

4.2 Staff deployment

One of the major challenges in business life is providing the right jobs for the right people. Underperformance is a widespread and costly issue in companies that cannot ensure that their staff works in the right place. This may be due to mismatching of job requirements and individual attitudes, lack of interest, qualification or experience, or the inability to make use of hidden talent and implicit potential. humanlogix provides a sophisticated matching tool emphasizing behavioural attitudes as a key factor of work performance. Knowing about individual behavioural strategies and attitudes for example in Leadership, Decision, Working Style, Risk Attitude, Conversation Attitude, Development and Change etc. helps you find the right job for the right people, where individual strengths and talents can be proven. humanlogix helps you enhance people performance through efficient deployment of staff.

Get the right people to work in the right place

4.3 Team Design

Team member diversity, meaning that members have different personalities, values, behavioural strategies, experiences, skills, views of the work, etc., is generally advantageous for a team's task accomplishment. Homogeneous teams run the risk of approaching problems with narrow perspectives that go unchallenged. In contrast, diverse views are advantageous for teams addressing complex problems requiring creative or innovative solutions. A diverse team can appreciate the problem and possible solutions from many different angles. Teams need enough heterogeneity to fully appreciate the wholeness of the task facing them, and they need enough homogeneity to facilitate communication, to reach agreements, and develop cohesiveness. Importantly, it is possible to be heterogeneous on some personal dimensions, such as educational background, and homogeneous on others, such as values and interest in the team.

Shape productive teams with the personalities you have

hx-profiler can help in shaping a productive team with just the personalities and diversity you need. This way you can increase productivity through deliberate team structures.

4.4 Career Management

Nearly everyone seeks challenges and a successful career development. But only few know about their individual interests and talents or they cannot judge in which work context they might want to play a part. hx-profiler brings candidates in realistic work scenarios with different situational settings, where the candidate can evaluate whether they have interest or special behavioural strategies to handle such a scenario in real life. Thus hx-profiler cases offer a wide variety of different situations as different tasks, business functions, work context (front, middle and back office) and situational settings as structured or

Conduct intentional, self-directed career management and increase staff retention

unstructured scenarios, easy to handle or challenging situations. The comprehensive reports from humanlogix profiler not only help the individual to find out what career step to plan next, they are also useful for job applicants, who can increase their chances in the recruiting process, when adding a comprehensive behavioural profile.

Many companies struggle today with a lack of a robust talent pool from which to select future leaders. It is relatively straightforward to identify and assess experts in specific functional or technical areas, but much more difficult to determine who has the people skills, leadership capabilities and business breadth etc. required for the nature of leadership today. Therefore many companies need to develop and groom their own leaders.

Using hx-profiler for in-house career management provides an attractive service to employees to identify high potentials inside the company before they leave. This way humanlogix profiler helps to conduct intentional, self-directed career management within the company and thus increases retention of the staff you want to have.

4.5 Development and Coaching

Annual appraisals are essential for the effective management and evaluation of staff. Appraisals help develop individuals to improve organisational performance and feed into business planning. But simple performance appraisal is a backward directed process providing scant evidence of which talents and potential an employee might have. Potential appraisals are a forward looking process, which refer to identification of the hidden talents and skills of a person. The person might or might not be aware of them. Potential appraisals are a future-oriented appraisal with the main objective of identifying and evaluating the potential of the employees to assume higher positions and responsibilities in the organisational hierarchy, instead of leaving that to the gut-feel or subjective influence of a supervisor. hx-profiler is an instrument for potential appraisal as the candidate can show behavioural attitudes as well as interests in situations, tasks or business areas he might not yet have worked in. Thus hx-profiler helps as an unbiased and valid assessment to identify interests and attitudes of employees for future jobs or individual career decisions. Furthermore hx-profiler can identify development needs, especially within the behavioural framework of a person which are otherwise difficult to assess. With up to 240 behavioural decisions throughout ten dimensions, the reports of hx-profiler have proven to be a valuable basis even for an individual coaching and development process.

Unbiased and valid assessment of high potentials

4.6 Talent Management

One of the major problems particularly in knowledge based companies is attracting and retaining enough employees at all levels to meet the needs of organic and inorganic growth. This often implies (re)designing talent management practices

Attract talents and match them with future jobs

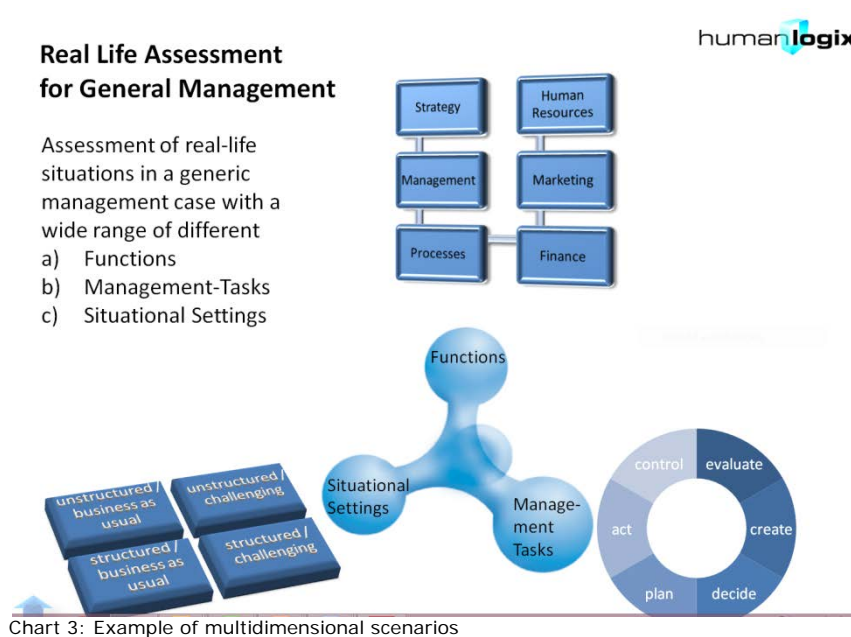
to attract and retain individuals of all ages (Gen X's and Gen Y's). The challenge of calibrating talent management practices and programs to attract and engage talents and future leaders is critically important to all firms and particularly so for firms that depend on a strong flow of top talent, such as professional services firms. One success factor is a company's ability to create a compelling employee value proposition for the organization that appeals to individuals with diverse needs, preferences and assumptions.

hx-profiler is an open framework to define behavioural and attitudinal requirements for knowledge based functions. It helps in overcoming the idea that preconditions of a function are standardised, but it gives a company all the freedom to define the concept of jobs and functions according to their own and unique values and culture instead. Furthermore it assists in systematically collecting and assessing data about talents and inherent potential and matches them against the preset requirements. humanlogix helps to identify, evaluate and develop human capital with a realistic, job-related online-assessment.

Today a lot of training is required because people are in the wrong jobs, and hence need to be skilled. Putting the right people in the right jobs also means saving a lot of training dollars. Furthermore without having assessed deficits in individual behaviour and coping strategies, investments in trainings can only produce benefits by chance. hx-profiler helps to identify individual training needs, assess behavioural improvements and develop people in the right jobs in a cost efficient way. hx-profiler will help you save money by designing your training and development more focused.

5 Storyboard with realistic cases

hx-profiler is a multidimensional assessment-tool with cases which address a variety of scenarios which are tagged in three dimensions:



Not only in terms of validity is it important that the cases reflect realistic situations which are embedded in a storyboard with a macro-case, describing the overall context of the assessment. The macro case is exciting, letting candidates immerse themselves in a realistic story:

A) The candidate is a Management Associate of the SWISS ASIA BANK (*hx-profiler Banking*). In this role the candidate will participate in a talent development program: He will be attached to branches and various departments throughout the bank. The goal of these attachments is to gain critical experience in the bank's main functions in preparation for placement in future key roles.

B) In the "*hx-profiler General Management*" the scope of tasks is much broader, as the candidate will have to lead "THE SWISS MOUNTAIN LODGE" through an interim period of change to secure the economic survival of the hotel, meaning that the candidate will have to take tactical and strategic decisions, solve operational problems and build the base for sustainable growth. Issues and problems are to be

Exciting real life cases let you draw into situations that can occur tomorrow

expected in marketing, finance, organisation and in human resources. There is no need for the candidate to be familiar with the hotel business or with Switzerland and its tourism industry. On the contrary, the approach has been to choose a context where participants have an intuitive understanding of it (normally as customers) and thus, on average, most candidates will have about the same imagination as to what is needed to satisfy guests, and the same lack of technical expertise or knowledge proficiency in the case. Furthermore, the idea is evaluate natural behaviour, what the candidate thinks would be the best solution in the described situation. As many situations need urgent and quick solutions – just like in real life – natural and spontaneous behaviour is elicited.

6 Behavioural Model

All cases relate to a set of behavioural dimensions. The full version contains 10 dimensions, the short version consist of 5 dimensions. According to the client's needs hx-profiler can be customized by choosing the behavioural dimensions of interest.

Behavioural Model General Management



7 Assessment

Entering the test as a candidate is as easy as logging into a mail account. From the test administrator (a dedicated person within the company or through humanlogix) the candidate receives his login (username and password) to access the test area via <http://profiler.humanlogix.com>. On entering the account the candidate may personalise the account with additional data and his photo.

The online-assessment is available 7 days – 24 hours. At the candidate's convenience he can start easily by reading the Macro-Case, which will give the general context and some advices on how to complete the profiler. After the Macro Case the first Micro Case will be displayed and the test can begin: Every Micro Case has a short description, embedded in the overall storyboard (Macro Case), immersing the candidate in his role and the case. The situational descriptions may be tasks to fulfil, complaints to handle, problems to solve, actions to be planned etc. Every Micro Case gives a suggestion of four options for dealing with the situation. All four options are feasible but differ in the way in which they tackle a situation. When evaluating each option the candidate can only choose one "fully agree" option and the other three options must be either "partially agree" or "disagree". Partially agreement is for options that might include parts, with which the candidate agrees and others, which he would not have chosen. He can choose "partially agree" not more than twice in each Micro Case. Furthermore the candidate will be asked to what extent in every case he has working experience or training qualifications in each Micro Case's situation and whether he would like to face this situation in real life.

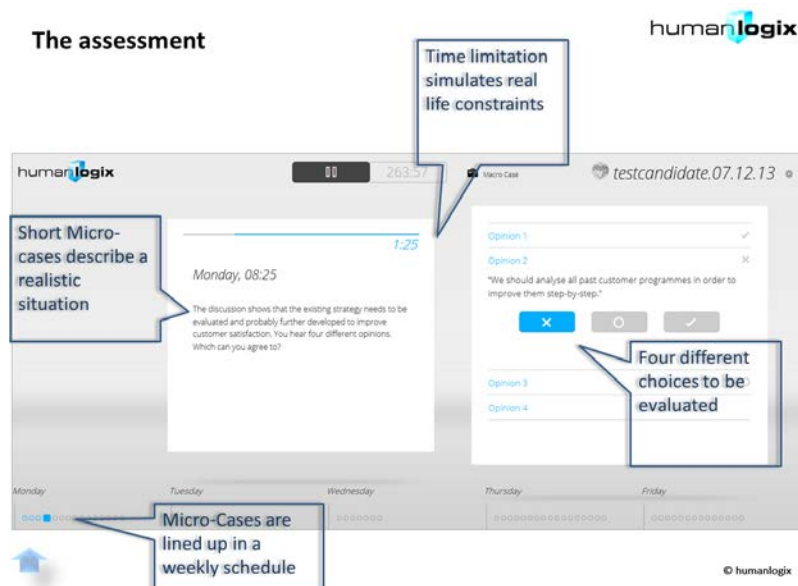


Chart 3: Screenshot of assessment

The time required is about one to two hours to work through the cases, depending on the version chosen. After having terminated the assessment the candidate and defined experts (coaches) can instantly access the online-evaluation centre with various reports.

8 Individual reports

The individual reports (behavioural patterns) are instantly available and help in getting a differentiated view of a candidate, of dominant attitudes and dominant behavioural strategies, showing how someone would react in certain situations to certain problems.

8.1 Behavioural Overview

Human behaviour is one of the most complex phenomena because it is a mixture of different, sometimes contradicting attributes. Each and every human being makes use of his or her unique talents and own behavioural strategies when it comes to solving a task. These patterns are naturally based on the personality, talents, experience and role expectations as well as the situation and environment. In response to this complexity, humanlogix has developed a way to present behavioural patterns that describe the individuality of a person as a personal “behavioural pattern”.

No waiting for results: Personal comprehensive reports are instantly available

The behavioural overview shows in every behavioural dimension the most significant attributes the candidate has shown in the test. The behavioural overview is a reduction of complexity leading you to the most significant descriptions on what attributes you can expect from a along the behavioural dimensions chosen. Visually easy to understand humanlogix provides the same information you would get from a person knowing a candidate very well, describing the essential traits the candidate will show in his behaviour.



Chart 4: Behavioural Overview

8.2 Behavioural attributes

Human behaviour is a mixture of diverse and sometimes also contradictory behavioural attributes, which might be chosen more or less significantly in certain situations. Humanlogix is able to distinguish the probability of four different attributes in every behavioural dimension. These attributes will be evaluated within six different situations assigned to one behavioural dimension. The variety of each six situations gives a valid insight into individual strategies.

Visual easy to understand and significant descriptions on what a candidate in particular is - or is not



Chart 5: Detail View on Behavioural Dimensions

All behavioural attributes are different in terms of attitude and styles rather than better or worse behaviour (avoiding the problem of social desirability). The important question is: to what extent are they suitable to match a job profile or a task in a certain situation? Therefore the behavioural pattern will only give a description of the candidate's choice of behavioural options in daily work and, when using the matching function, relative to predefined job requirements.

No social desirability and no test breaking

Another emphasis lies on risks of exaggerations when using a behavioural attribute in a dominant way.

8.3 Concept behind behavioural attributes

Values and personal qualities and attributes we develop throughout our life are a source for individual orientation and help us judge and decide in situations. Seldom is it only one personal attribute nor is it an average of attributes that make us decide in one or the other way. More often it is a mixture of complementary attributes and traits, helping us to avoid becoming too single-sided in our judgement or behaviour. The idea of humanlogix behavioural descriptions is to show this mixture and complementarity and even the tension which arises when someone is using contradictory attitudes as guiding principles in his decisions. Being able to use a variety of behavioural attributes can again be an important source for handling complex situations adequately. According to C.G. Jung even the "*coniunctio oppositorum*", meaning the combination and coincidence of opposites gives access to new potential and possibilities in personal development.

Humanlogix refers to these ideas of offering complementary principles as well as to the idea of the value square (Schulz von Thun et.al.), in which a value is combined with a positive, complementary antonym giving a positive stress ratio. Humanlogix makes use of such antonyms within the behavioural attributes, so called middle-attributes. For example the dimension *Focus* has the middle-attributes *specialising* and *generalising*. These are not contrary antitheses; a »both/and« approach, meaning a mixture is therefore feasible for the two values.

Using value squares and coincidence of opposites to describe complexity of human behaviour in a comprehensive way

In addition humanlogix introduces so called wing-attributes, which are more distinct or explicit. In the above example of the dimension *Focus* the wing-attributes are *focussing* and *holistic*. Unlike the value square model, these wing-attributes are not simple pejorative exaggerations, they can be very welcome, depending on the requirements of a function.

With the model of middle-attributes and wing-attributes hx-profiler gives an easy to understand model of behavioural traits. Its major advantage to other models is that all attributes are equally valuable, reducing the risk of social desirability. Thus there is no test breaking with the intention of giving the right answers, as there are simply no right answers. Right or wrong can only be judged in terms of suitability for a job.

None the less, humanlogix points out the risk of exaggerations within an attribute. Too much of one attribute might lead to unwanted exaggerations and one-sided behaviour hampering success. A cooperative leadership attitude for example might be a good behaviour strategy in many cases. If it is chosen predominantly and unilaterally, it may lead to the risk of compromises and long decision processes. Knowing about that risk is a great value to those who want to use their behavioural attitudes deliberately.

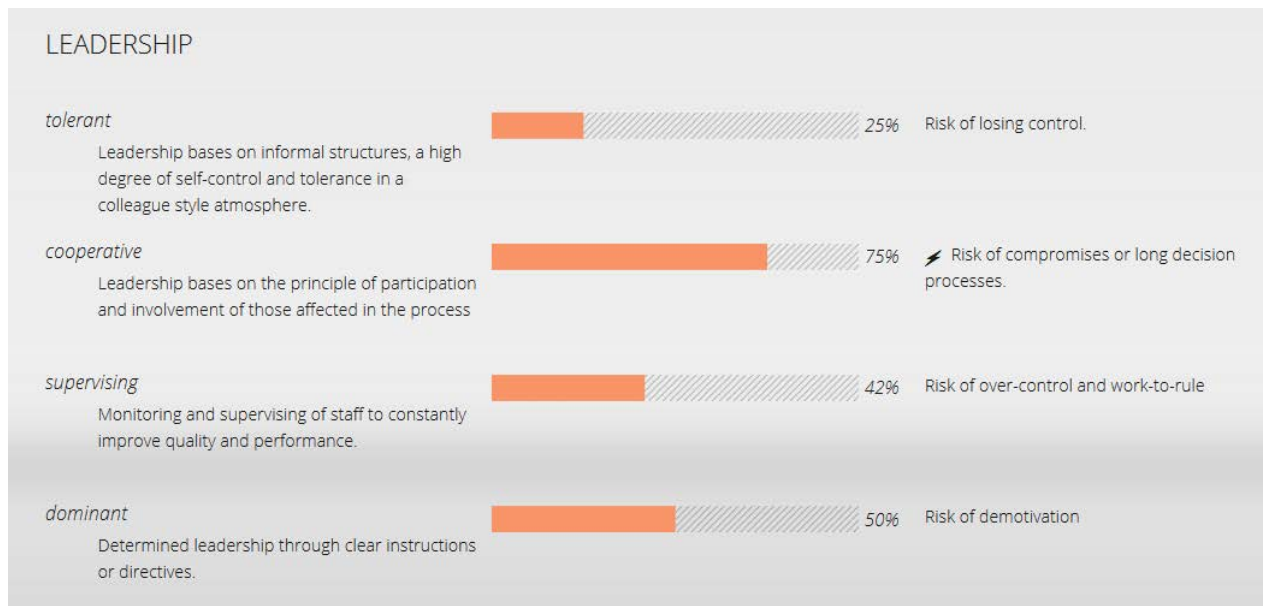


Chart 6: Behavioural Attributes, pointing out risk of exaggeration

In summary the humanlogix approach of behavioural dimensions with middle and wing-attributes can provide useful information about a candidate, such as

- how diversely have the variety of attributes been chosen (does the candidate dispose of behavioural diversity)
- how explicit is the behaviour to be expected (wing-attributes versus middle-attributes)
- are there significantly strong behavioural attributes that have been chosen more frequently and/or with more conviction than others (that is, what you CAN expect from a candidate)
- are there significant weak behavioural attributes that have been chosen rarely (that is, what you CANNOT expect from a candidate)
- which risks of behavioural exaggerations are there to be aware of with a candidate

8.4 Cockpit views

In many cases people tend to focus on one or two behavioural characteristics or attributes, when describing a person (as in the behavioural overview). This might be enough for a first glimpse, but it may not be sufficient to understand the complexity of a person. Humanlogix gives a comprehensive overview of all behavioural dimensions in a cockpit view. This helps to learn more about a candidate by comparing combinations of behavioural attributes. With a little training, the experienced coach will find interesting patterns, stress ratios or self-reinforcing interdependencies.



Chart 7: Cockpit View

8.5 Experience, Qualification and Interest

People are not equally prone to making the same decisions, to developing something new or to having very intense client contact. People differ by their experiences, their qualifications and interests. These items are assessed in every micro case, giving clues to the kind of situational clusters a candidate feels comfortable in. As the profiler on its own is no skills test, the answers must be interpreted in this section as a self-assessment or self-perception. Nevertheless they are a comprehensible basis for discussion, be it in a recruitment interview or a coaching process.

Unique comparison between interest, experience and qualification

Even more important than the absolute figures is a comparison between interest and experience or qualification which provide clues

- what is the candidate interested in (which he has experience in = experienced judgement)
- what else he has interest in (which he has no experience in so far = potential job development)
- as to whether the candidate has been able to make use of his formal qualification in according working situations
- as to what extent he has built up experience without having an according formal qualification

Evaluation of a candidate's self-perception of experience and formal qualification and interest in different functions helps to complete the picture of a candidate given by a formal CV.

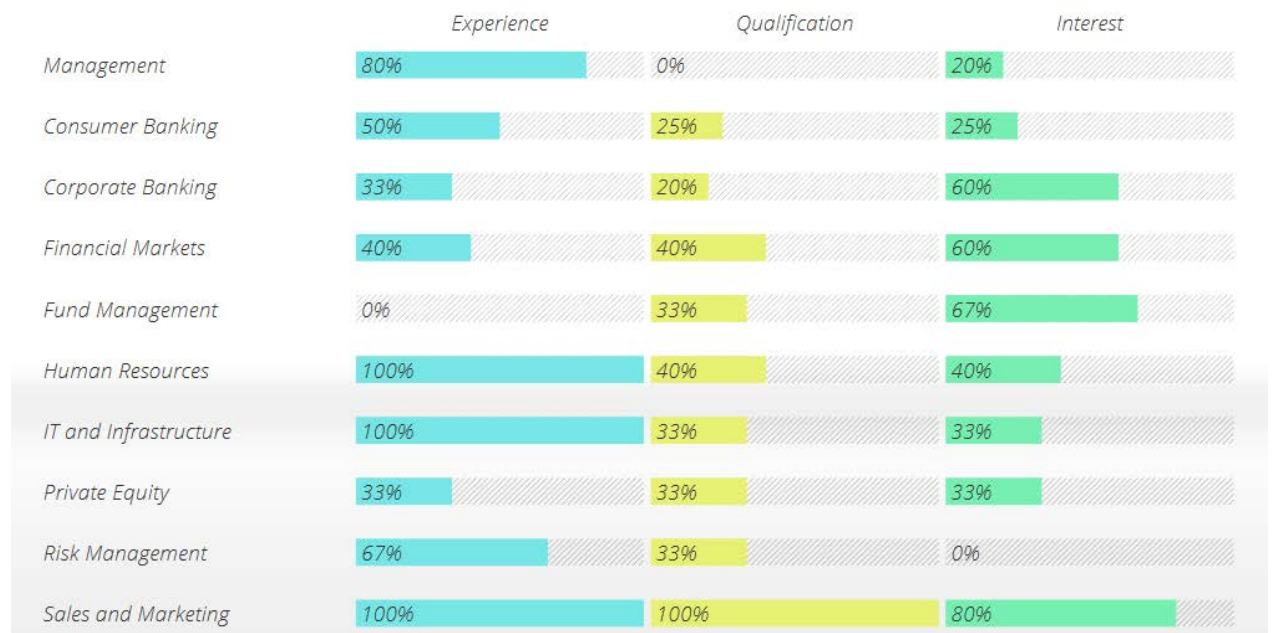


Chart 8: Interest, Qualification and Experience

8.6 Tasks

Human behavioural strategies may differ according to the task someone has to handle. This is due to socialized behaviour and individual coping strategies. The way someone is analysing a situation might be different to the way decisions are being taken or to the way client situations are handled. This might be in many cases an indication of inconsistent behaviour, or when using it with awareness, it might be a resource of situation-specific and purposeful behaviour. Humanlogix is able to describe these inconsistencies and variation with an in-depth analysis of

different behavioural attitudes according to different tasks. By this, additional information can be derived for functions, in which certain tasks are predominant. The colour scheme gives additional information where middle-attributes (black) or wing-attributes (blue) have been used.

	Analysis and Evaluation	Client contact	Decision, supervision and control	Development of resources and processes	Execution and Advice	Strategy, new products and new business
<i>Leadership</i>	cooperative	tolerant	supervising	cooperative	cooperative	dominant
<i>Development and Change</i>	creating	consolidating	developing	creating	developing	developing
<i>Risk Attitude</i>	risk-sensitive	risk-sensitive	risk-sensitive	risk-sensitive	risk-sensitive	risk-sensitive
<i>Organizing and Planning</i>	systematic and structured	systematic and structured	systematic and structured	unconventional	systematic and structured	unconventional
<i>Impact</i>	attention to detail	attention to detail	attention to detail	go the extra mile	attention to detail	go the extra mile
<i>Conversation Attitude</i>	inquiring	inquiring	listening	process oriented	listening	listening

Chart 9: Detailed Task View

9 Discussing the basic method

9.1 General comments on adapting the SJT to the purpose of humanlogix

Situational Judgement Tests are assessments to measure individual judgements in work settings. Thus SJT simulate real life work situations to give evidence on how someone will perform in according situations. The way SJT are constructed, one of the big advantages is the high criterion-related validity (McDaniel, Morgeson, Finnegan, Campion have proved a substantial validity of .34 for the prediction of job performance). Item stems (in our words cases) can be produced in different ways such as videos, text etc. Although videos presentations of situations may have a higher fidelity (Lievens et. al 2000), hx-profiler has used text formats as they work better in a cross cultural setting than actors do. Unlike many other SJT who use item stems in discontinuous sequence, hx-profiler follows a storyboard to immerse the candidate into a real life situation.

Best predictor for future behaviour is observed behaviour under similar situations

One of the biggest advantages of Situational Judgement Tests designed close to work life is that it can act as a “realistic job preview”, giving useful information on a) whether a candidate can meet the behavioural expectations and thus will be able to “do the job” and b) how he will do the job, giving evidence about basic attitudes and behavioural strategies. Hence it is a useful selection instrument in recruitment situations. Research also shows it decreases early abandonment of the job due to unsuitability. Furthermore, candidates tend to like Situational Judgement Tests as they can see the relevance of the process to the job.

However, it must be said that candidates with a lot of previous experience are favoured, as they might have experienced corresponding situations in real work life and might have learned, which strategy suits them best to manage a situation. Humanlogix has addressed that phenomenon by avoiding best answers, as they might not work anyway in every context. Instead hx-profiler suggests to match the candidate’s answers (individual profile) with a predefined profile expressing the company’s values, culture and the specific job expectations. Furthermore individual experience is taken into account by asking the candidate in every case about his/her qualification, experience and interest. Nonetheless the influence of experience may not be overestimated. McDaniel and Nguyen have shown that job experience only has a small correlation with Situational Judgement Tests.

One strong point about humanlogix profiler is the detailed information provided on various behavioural attributes. Unlike other tests, giving a percentage, to what extent a candidate might average on a scale of one behavioural dimension, hx-profiler subdivides one behavioural dimension into four attributes, showing the significance of every attribute chosen throughout six cases. This takes into account that behaviour is neither an average nor a one-dimensional manifestation but always a mixture of more or less decisive attributes. Given that humanlogix will not only predict whether a candidate CAN do the job, but will also explain HOW he will do it.

In distinction of *typical* performance assessments towards *maximal* performance assessment, meaning whether a candidate has to respond what he/she thinks is the correct answer (maximal performance) or what he/she would most likely do (typical performance), humanlogix has chosen a typical performance measure based on behavioural tendency. This is due to the intended test results as to the fact that cognitive variance is expected higher in maximal performance assessments. On the other hand humanlogix has addressed the risk of tendencies towards self-deception and impression management which is to be expected in behavioural tendency assessments by using response-options that are somehow equally feasible and desirable (as the related behavioural attributes). This increases the dilemma of judgement and makes the hx-profiler harder to solve but reduces intentional test faking or self-deception.

9.2 Scoring

Many Situational judgement tests (SJTs) present scenarios drawn from a work context and ask respondents to select the most appropriate response from among a range of options. One of the weak points when using Situations Judgement Tests is scoring of answers (Strahan, Fogarty, Machin, 2005). Unlike many other SJT humanlogix is not defining correct or appropriate answers via expert judgment (team of experts decides the best answer to each question), target scoring (test author determines the correct answer) or consensual scoring (score is allocated to each option according to the percentage of people choosing that option). As Hx-profiler is evaluating behavioural tendency and not knowledge, the candidate is asked not to select the right or appropriate answer but to judge all four options according to what the candidate would most likely do. Individual scores are used in a descriptive way to be related to predefined attributes (text constructs). Candidates may score their level of agreement on a three-point Likert Scale (disagree, partially agree, totally agree), presenting easy to understand categories with equivalent "distances". By forcing the candidate to choose one option as best choice and by limiting the category "partial agreement" to two per situation, the risk of a central tendency bias is reduced.

9.3 Content Validity

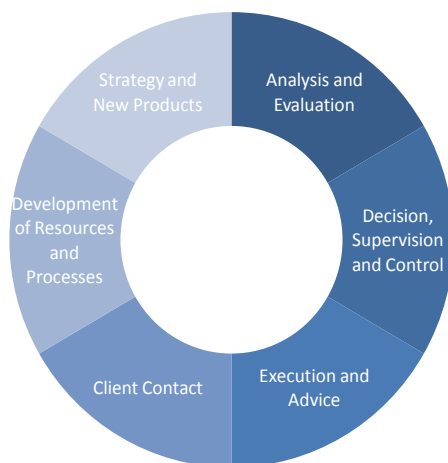
Humanlogix profiler was designed as a Situational Judgement Test to describe natural behaviour of a candidate in real life work settings. Content validity evaluates the direct relationship between the test and the job. The tasks and duties to be performed in humanlogix profiler were derived from the a) tasks and duties and b) critical incidents in lower to middle management in the banking industry (Management Associate) as well a General Management cases along the problem solving cycle. The profiler was designed to encompass significant (in importance) tasks/duties of the job. Thus a variety of up to 60 micro-cases has been designed, describing each a relevant work situation. Within these cases the candidate is asked to judge a variety of four different options to the degree of his/her accordance. Giving the amount of cases and options, the candidate will take 240 judgements which give a reasonable high sample of data to describe 10 behavioural

dimensions. Furthermore the cases are well balanced to describe various situational settings (structured equal unstructured settings and business as usual situations equal challenging situations). All cases have been developed and approved by banking experts, senior managers and human resource specialists. As humanlogix profiler is not only a performance-oriented but also a potential-oriented test, the range of cases describes the whole variety of possible functions, tasks and situations and not only those in which the candidate has experience in. This way hx-profiler is able to provide information on new functions that a performance related job observation cannot provide.

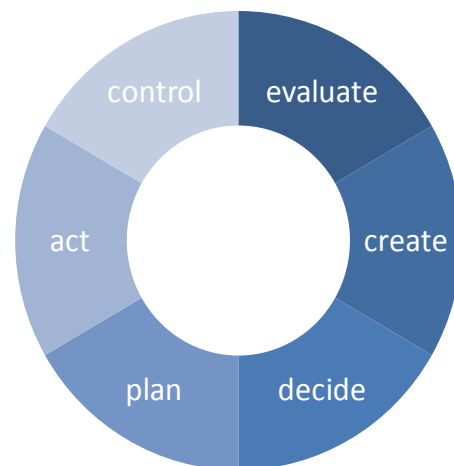
All 60 cases are evenly divided into front, middle and back office functions, showing the whole value creation chain of a company.

As practice shows that individual coping strategies and behaviour may change depending on different situations, humanlogix has defined a set of six different tasks the candidate may encounter in practice. All 60 micro-cases are evenly balanced to describe individual decisions and behaviour within the following tasks:

- hx-profiler Banking:



- hx-profiler General Management



Using 60 real life micro-cases referring to a variety of tasks, situations and functions, humanlogix profiler can prove a very high content validity.

9.4 Criterion Validity

Criterion Validity is the degree to which performance on an assessment procedure predicts an important criterion that needs to be evaluated. The main intention of humanlogix profiler is to produce valid information about dominant behaviour and situational decisions of a candidate in real life. The behavioural model contains 10 dimensions with four attributes each. The micro-cases refer to these dimensions giving four options to judge in every case. The options are based on a

representative textual description of every single attribute in the given situation. This way humanlogix profiler can prove a high equivalence between the options and the underlying text constructs of every attribute. For every dimension the candidate will judge 6 micro-cases, which provide a good quantitative sample to identify dominant attributes.

Although the test construction supplies a good assurance that the behavioural attributes are described in a valid way, humanlogix pretested in 2001 the degree to which candidates proved equivalence between humanlogix results and their self-perception. It was demonstrated that over 90% responded that humanlogix profiler described them in high accordance with their self-perception. This confirms the high acceptance of humanlogix profiler for the candidates. As expected a higher degree of behavioural variety was seen in situations that were new to the candidates, although, in general, existing coping strategies were mostly applied to new situations as well.

Given the high equivalence between case construction (options) and the underlying constructs of the behavioural attributes and the intention to describe those attributes in different situations in a valid way, and given the high equivalence between test results and self-perception of candidates, humanlogix profiler proves high criterion validity.

9.5 Face Validity

Past experiences with humanlogix profiler have proved very high face validity (candidate's perception of how valid a measure is based on simple visual inspection). As the profiler only describes dominant behaviour and situational decisions and does not test skills, performance or the ability to choose best answers, the method has a very high acceptance in practice. The micro-case method as such and the chosen situations have been proved to be close to life, interesting and stimulating. Only few reactions showed that the amount of 60 micro-cases and the time of two hours required were more than the candidate had expected. Direct access to personal results was perceived to be transparent and fair and increased credibility and acceptance in the eyes of the candidates.

9.6 Predictive Validity

Humanlogix's aim is not to predict future performance such as productivity, use of skills or success etc., but to gather information about the dominant behavioural pattern of a candidate in order to match it with behavioural expectations in certain roles and functions. Thus it is not meant to differentiate candidates in good or bad, in successful or not, but to gather evidence about their behavioural suitability for a defined function. Given the high content validity humanlogix is able to predict matching of expectation and behavioural dominance.

9.7 Construct Validity

Humanlogix is no psychometric test measuring traits (e.g. intelligence, sociability) but describes dominant behavioural patterns according to 240 judgements the candidate takes throughout the SJT. All options given in the test relate to predefined constructs (behavioural attributes) referring to a behavioural model with four differentiated segments.

Every one of these ten dimensions is divided into four attributes with clearly defined text constructs. These text constructs are distinctive definitions (behavioural descriptions) which are made transparently within the individual reports. Thus construct validity is assured through the construction and precise definition of behavioural attributes. Each one of the 240 response options are linked directly to one of the predefined behavioural attributes.

Humanlogix avoids giving standard values to compare attribute values of a candidate with norm groups, as norm referenced interpretation is not the aim of humanlogix. humanlogix works with criterion-referenced interpretation, meaning that the results are not used to indicate how well a candidate compares to others – they relate solely to his/her degree of matching with expectations in the specific area assessed. The attribute values are needed to find distinctions within one behavioural dimension showing the individual mix of attributes used in different situations (individual behavioural pattern) or to match a candidate's behavioural pattern with the expectations of a company or function.

Behavioural Model General Management

humanlogix



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9.8 Reliability

Retest-reliability is demonstrated by the consistency of scores obtained when the same applicants are re-examined with the same or equivalent form of an assessment. Retest-reliability was tested within the first test battery developed in 2001/2002. Retest-reliability proved to be very high when re-examining after three days with 50 candidates. This was obviously due to the fact that candidates remembered the situations and their judgements as normal retrospection. Retest-reliability within the banking case is expected to be the same due to equivalent test construction and was proved with first candidates to be a .895 correlation of results three months after first tests were taken.

Working with humanlogix profiler results in coaching or training settings often initiated an individual development process in which personal behaviour was reflected and in many cases modified over time. Due to this development a retest after 12 months may show different results with no significance to the initial test reliability. Furthermore reliability reflects the extent to which these individual score differences are due to "true" differences in behaviour being evaluated and the extent to which they are due to chance, randomness or errors. humanlogix can avoid errors out of scoring procedures (raters' error or bias) since the reports are developed automatically out of the candidates' answers. The only realistic source of errors or randomness is the candidate's level of motivation, alertness or anxiety during the assessment. In order to avoid mistakes out of excessive demand or lack of motivation, the candidate may interrupt the test at any time as long he/she terminates the test within 24 hours. In addition there are some test options that would disclose randomised answering.

9.9 Further Quality Features

1. Hx-profiler is **mass-customizable**, easy to administer and scalable from 1-x candidates. The comprehensive and individual report gives sophisticated information as expected from a real life assessment but **avoids typical assessor's bias**.
2. Significant **practical benefit** due to consideration of situational decision making: Behaviour and/or individual decisions may vary in different situations. Humanlogix tests the same behavioural dimension in six different situational settings. Thus it is possible to identify behavioural variety or dominant behavioural attributes similar to when an employee is being observed over a longer period of time.
3. Humanlogix is constructed in a way that gives **no incentive to fake job proficiency** since the different options to choose are all feasible and can lead to success.
4. Humanlogix profiler is perceived to be **fair and valid** by both recruiters and candidates, as all candidates are treated in the same way.
5. As humanlogix uses a defined set of tasks and situations, the candidate's answers can be analysed with regard to **behavioural consistency**. It can be shown whether a person, in similar situations, acts using the same coping strategies or not.

10 Development Partners

Humanlogix has developed tools4talents with a broad range of partners on scientific and practice level.

- Berger, Thomas, lic.phil. / Psychologist University of Freiburg, Germany
- Bogdahn, Andrea, Psychologist, Ruhr University Bochum, Germany
- Chan, Benny, Wealth Partners Ltd., Hong Kong
- EBS, European Business School, Oestrich Winkel – Frankfurt, Germany
- Massive-Art, Dornbirn, Austria
- Schumann, Jörg, Psychologist, Universität of St.Gallen, Switzerland
- SyntheGra AG, St.Gallen, Switzerland
- Wunderer, Rolf, Prof. Dr., Universität of St.Gallen, Switzerland
- Zielke, Christian, Prof.Dr., University of Applied Sciences Giessen-Friedberg, Germany

11 Further information and contact

Don't hesitate to contact humanlogix for further information:

Swiss Contact:

Humanlogix AG

Multergasse 26

CH 9000 St.Gallen

contact@humanlogix.com

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