ASSESSMENT INFORMATION BRIEF:

REVELIAN THEME PARK HERO (RTPH)

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About Revelian

Revelian is an innovation-driven Australian company at the forefront of providing unique psychometric tests, surveys, games and communications analytics.

We deliver insights to inform people decisions that help organisations recruit the right people, develop employees, as well as enhance and align team culture and performance.

Leading companies including some of the nation's biggest employers use Revelian to support their hiring and people management decisions with objective insights.

Points of Difference

Some of the key attributes that distinguish Revelian include:

Full range of recruitment and development tests

Unrivalled 7 days per week client and candidate support

Australian assessments, Australian normative data

Unlimited assessments per hire pricing option

Immediate results for both candidates and clients

Australian based psychology and development teams

Quality endorsed company (AS/NZ ISO9001)

REVELIAN

Revelian Theme Park Hero (RTPH)

- Assesses   Mental Agility, Cognitive Speed, Attention, Spatial Aptitude, Numerical Reasoning
- Predicts   Success on the job
- Time to complete Approx. 15 minutes (elements are timed)
- Context for use   Recruitment

What is Revelian Theme Park Hero?

Theme Park Hero is a game-based psychometric assessment that provides an innovative way to measure candidate ability. This assessment is highly engaging, but also uses state-of-the-art technology and analytics to accurately measure aspects of candidate ability including mental agility, cognitive speed, attention, spatial aptitude and numerical reasoning.

Theme Park Hero features a rich narrative that places candidates in the position of a park manager. Candidates must complete a variety of tasks including popping balloons for charity, constructing and planning waterparks, fixing broken rollercoasters, and sorting arcade tokens.

Game-based Assessments

Game-based assessments, unlike traditional assessments, take more into account than just the correct answer, providing a richer insight into a candidate's strengths and abilities. Game-based assessments draw the best effort from the candidate, providing insight into their true potential. This is done while maintaining robust psychometric properties and complementing traditional psychometric assessment data, such as cognitive ability tests.

A further strength of game-based assessments is their robustness against faking and response distortion, providing the candidate with tasks that address ability and aptitude while not exposing the exact nature of the construct being measured. This further strengthens the ability of game-based assessments to provide recruiters with true insight into their candidates.

Game-based assessments provide the candidate with a positive experience at the recruitment stage, which in return bolsters the recruiting organisation's branding and reputation in the employee market.

Why Use Theme Park Hero for Selecting Staff?

Revelian's Theme Park Hero employs a state-of-the-art analytics engine that provides insight into every aspect of game play and candidate actions. This allows us to gain insight into not only whether or not the candidate got the correct answer, but also how they got to that answer. Theme Park Hero is designed to offer candidates a testing experience that they find engaging and fun, while also motivating them to perform to the best of their ability.

Theme Park Hero places the candidate in the role of a park manager, where they must complete a set of tasks to fix attractions, build new areas, and help out around the park. The assessment is comprised of 4 sub-games that must all be completed by the candidate to create a game score. These are described below.

Overworld

The candidate starts out in the 'overworld', which gives a helicopter view of the park. This is where the assistant appears, to provide guidance to the candidate regarding their role as park manager and the specific tasks they are required to complete.
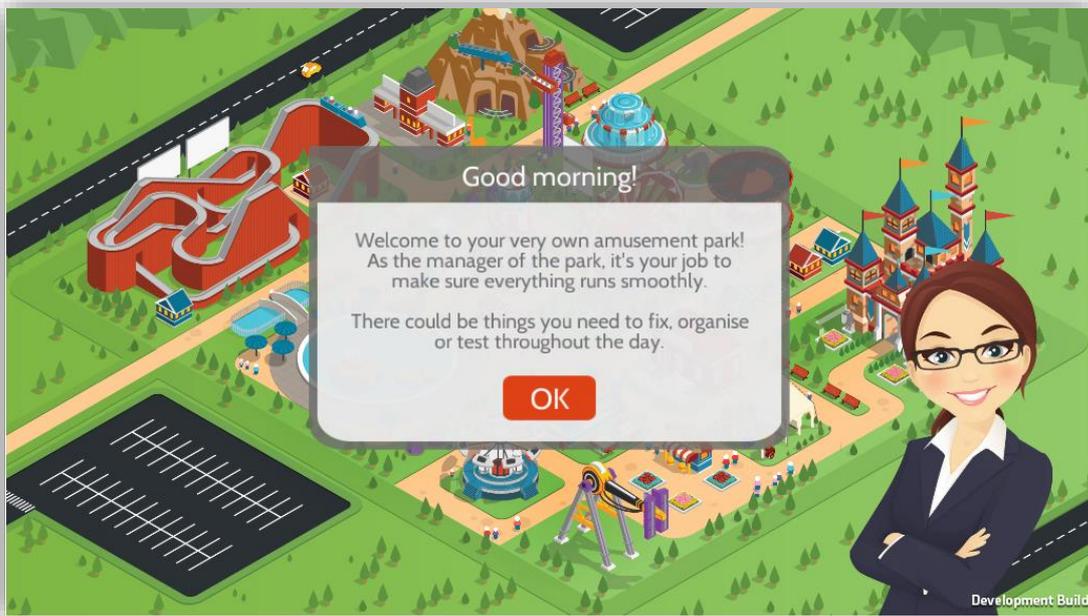
Make a Splash

In Make a Splash, the candidate must help plan and design the layout of a series of water slides and attractions. This is accomplished through the completion of a series of puzzles. The candidate must complete as many of the 9 puzzles as they can in 3 minutes, while the puzzles increase in difficulty.


Balloon Blast

In Balloon Blast, the candidate must pop a sequence of balloons to raise money for charity. They are presented with a word that spells a certain colour, but is itself a different colour, i.e. the word 'purple' written in red. The candidate must then pop the balloon/s that spell the colour (e.g. red) that the word is written in, thus eliciting a 'stroop effect' which, among other things, assesses cognitive ability and speed. The candidate will have 5 seconds to pop the correct balloons in each of the 20 rounds, which increase in difficulty.

Short Circuits

In Short Circuits, the candidate must compile a number of electronic circuit designs in order to repair the park rollercoaster. The candidate does this by completing puzzles with circuit pieces while using the blueprints provided as a guide. In some cases these blueprints are rotated in various ways and the candidate must complete the circuit design using the correct rotation. The candidate is given 3 minutes to complete as many of the 9 puzzles as possible. The puzzles increase in difficulty as the player progresses.
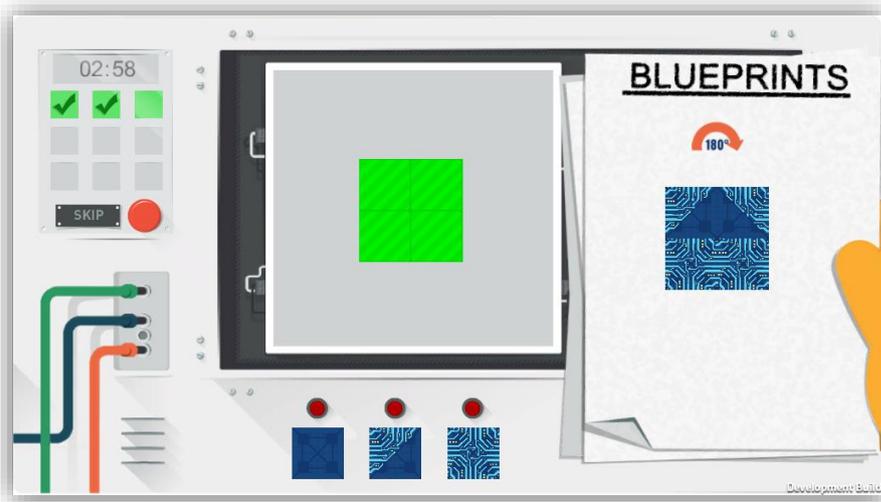
Tricky Tokens

In Tricky Tokens, the candidate must select which set of arcade tokens, either left or right, is worth the most, or if they are in fact equal in value. Each group will have tokens worth either 1, 2 or 4 points. Difficulty increases through the introduction of multipliers for individual tokens, multipliers for whole sets, and some tokens being rendered worthless. The candidate will have approximately 4 seconds to make their decision for each of the 35 rounds.
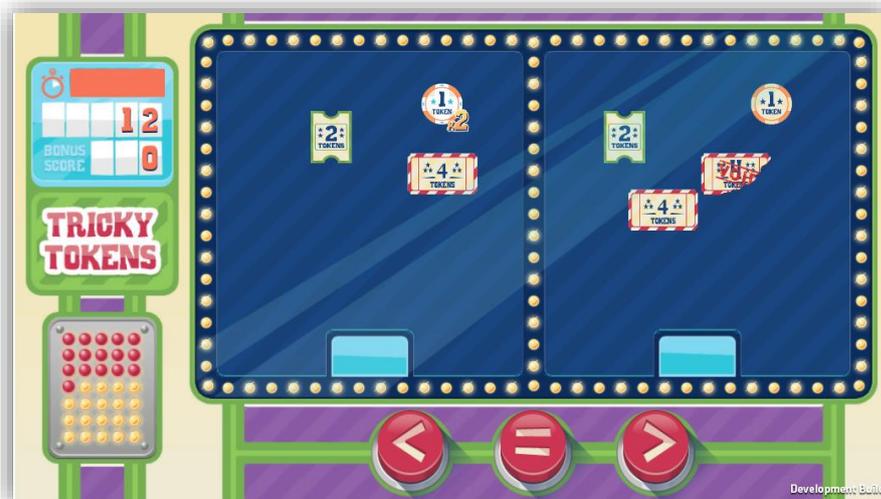
Hero Score

An overall Hero Score is provided for each candidate. This score is reported as a percentile and is derived through a weighted combination of metrics that encompass candidate responses and general game play across the four mini-games. Insight is therefore provided into a candidate's mental agility, cognitive speed, attention, spatial aptitude and numerical reasoning. This overall score can be used to both complement traditional ability assessments and stand alone as a sole assessment.

Normative Groups

When a candidate completes Revelian Theme Park Hero their composite Hero Score is analysed and their percentile calculated by comparing it to those achieved previously by a specific group of people that comprise the normative group. This group is important for subsequent interpretation, so the more relevant the comparison group is to the position, the greater the confidence that can be placed in this interpretation. The Revelian Theme Park Hero general comparison group (Employed Adults) is made up of a large and diverse group of individuals who have completed the game previously. Therefore this group is representative of the general population in terms of age, gender and ethnicity and is an appropriate group for comparing candidate scores.

Reporting

A candidate's score on Revelian Theme Park Hero is derived by comparing their performance on the game to that of others who have also completed this assessment. This comparison to the normative group forms the basis for interpreting scores.

Candidates' Hero Scores are placed into one of the five performance classifications, ranging from Far Below Average to Far Above Average, depending on their percentile score. The example below illustrates the overall Revelian Theme Park Hero Score for a candidate based on the general comparison group.

	Theme Park Hero Score					Comparison Score
	Far Below Average	Below Average	Average	Above Average	Far Above Average	General Comparison
Theme Park Hero Score						Far Above Average (99%)

Online Security

Revelian Theme Park Hero can be completed on the internet either remotely or under supervised conditions. This provides a high level of flexibility and convenience for candidates. However, when testing is conducted in unsupervised conditions, it is possible that the candidate may have had assistance in completing the assessment, and it is essential to protect the security of the assessments. Revelian adopts the following best practice strategies to ensure online security and reduce the likelihood of cheating.

Unique candidate experience

Revelian Theme Park Hero is designed to ensure a high level of test security by presenting a unique candidate experience each time the assessment is completed. Particular game features of the two 'round' based mini-games Tricky Tokens and Balloon Blast are randomised in such a way that no two sessions are identical, while the difficulty of each round remain consistent across all sessions. The 'puzzle' based mini-games Make a Splash and Short Circuits feature random streaming of puzzles for each level to again ensure that no two sessions are the same. Identical levels of difficulty at respective stages of the game and across all games played is maintained, however, to ensure that candidate comparison remains fair.

Motivating candidates to complete the test honestly

Prior to completing Revelian assessments, all candidates are required to electronically endorse a short statement indicating that they will not receive help from others when completing assessments , and will be honest, accurate, and perform at the best of their ability.

Secure online assessment using Unity

Our online testing engine is delivered via Unity technology, which is similar to Adobe Flash and allows us to deliver the assessment securely, and to ensure that assessment time is tracked accurately. Delivering the game through Unity also allows Revelian to securely download the assessment to the candidate's computer, reducing the influence of internet connection speed on the candidate's testing experience.

Detailed assessment session logging

From the moment the candidate logs on to the Revelian website to the moment they finish their assessments, Revelian creates detailed test logs of the candidate's testing session, including time spent in the assessment, internet connectivity, and individual issues and actions within each sub-game of Revelian Theme Park Hero. If the candidate indicates that their internet connection dropped out, or that they were disturbed while completing the assessment, assessment logs can be consulted to verify and help to support these claims.

Candidates can only complete the assessment once in a 12 month period

In order to ensure that all candidates can be compared against one another fairly, Revelian restricts candidates to one completion of each assessment within a 12 month period. To facilitate this, we gather identification details from candidates at a number of stages of the application and assessment process, so that new candidates can be compared against candidates in our database. If a candidate has completed a specific test within the previous 12 months, then they are not able to sit the assessment again. Rather, they are provided with the opportunity to 'release' their previous results to the new employer. This strategy eliminates candidate practice effects, resulting in fairer and more accurate assessment scores.
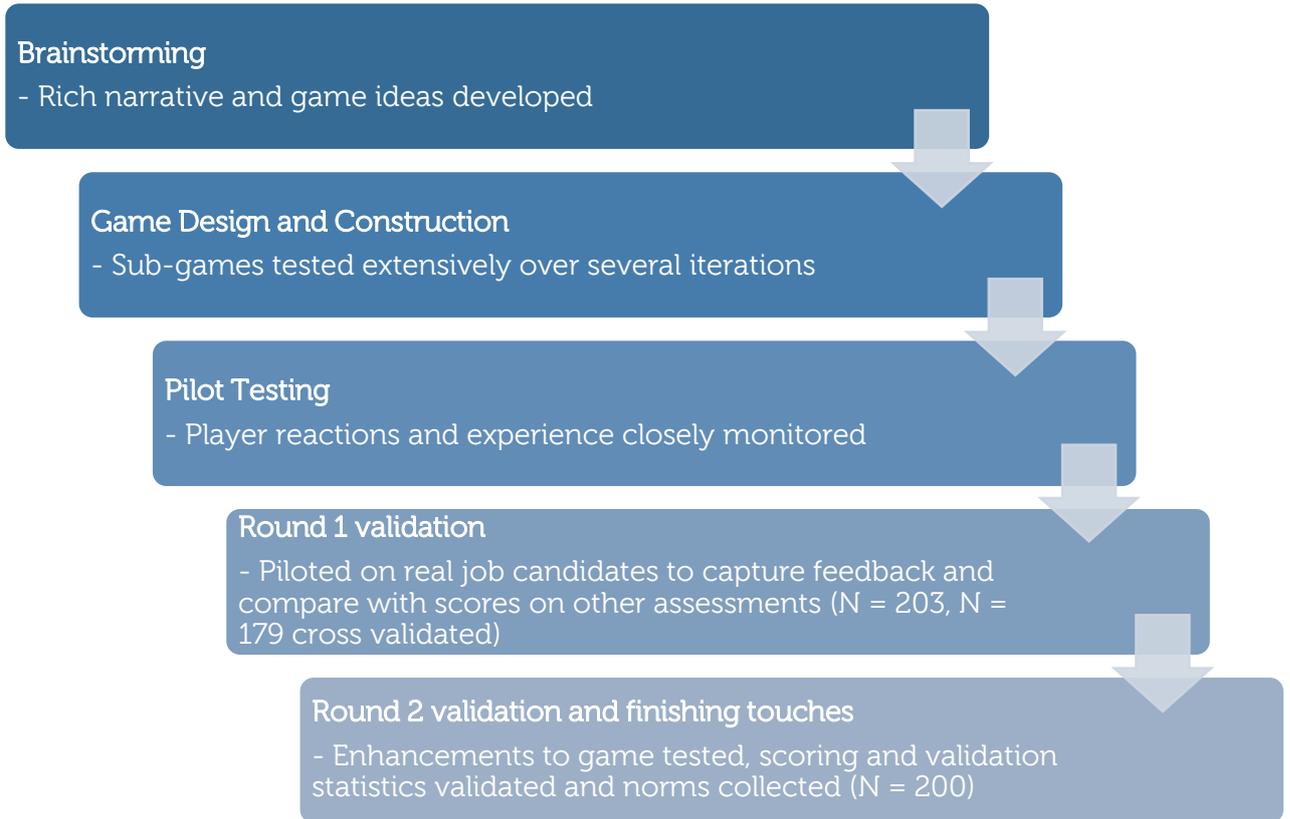
Validation

Test construction

Theme Park Hero was constructed through a rigorous and scientifically robust process, from the development of the theme and sub-games to the validation of the tool itself as a psychometric instrument.

The four sub-games were selected from a large number of initial game concepts, and were designed and subsequently perfected over numerous iterations in conjunction with game designers and developers. This process implemented feedback from a number of key stakeholders and candidates so as to ensure the best test experience could be achieved.

The game was validated using real candidate data, and construct validity was achieved through analysis against our existing cognitive ability assessment, resulting in cross-validation of the Hero Score across the two rounds of data collection. This ensured that the games themselves validly measure various aspects of cognitive ability.

Brainstorming

- Rich narrative and game ideas developed

Game Design and Construction

- Sub-games tested extensively over several iterations

Pilot Testing

- Player reactions and experience closely monitored

Round 1 validation

- Piloted on real job candidates to capture feedback and compare with scores on other assessments (N = 203, N = 179 cross validated)

Round 2 validation and finishing touches

- Enhancements to game tested, scoring and validation statistics validated and norms collected (N = 200)

Psychometric properties

Validation studies have demonstrated the strong psychometric properties of Theme Park Hero.

- Through the validation process, a total of 1476 people completed the game in the first round, and 961 people completed the game in the second round of validation.
- The scores for each sub-game (which then comprise the overall Hero Score) all correlated to a strong degree with Revelian's Cognitive Ability Test (RCAT). Make a Splash ($r = .41$, $n = 272$), Balloon Blast ($r = .466$, $n = 272$), Short Circuits ($r = .55$, $n = 272$) and Tricky Tokens ($r = .359$, $n = 272$).
- Each sub-game contributes in a statistically unique way to the overall Hero Score, which correlates strongly with RCAT. Analyses conducted prior to the release of this assessment as well as ongoing validation work has consistently shown that the Theme Park Hero overall score correlates with RCAT at between $r = .59$ and $r = 62$. This indicates that Theme Park Hero measures a highly related but statistically distinct construct to cognitive ability as tested by RCAT. Cognitive ability and related constructs have been found through decades of research to be a strong predictor of general work performance (Schmidt & Hunter, 1998).
- A demographic analysis found no significant differences between males and females across any of the primary and secondary variables.
- A demographic analysis found no significant relationship between English proficiency and scores on any of the sub-games or the overall Hero Score.

- There was a weak positive relationship between game hours played per week and score on Theme Park Hero, such that those that play games more often on average performed slightly better in the game. The strength of this relationship was minimal, and is similar to that of the relationship between comfort and experience with psychometric testing and performance on traditional tests, for which we recommend to candidates that they become familiar with psychometric tests and how they work. We would recommend something similar for Theme Park Hero. The participants are also given the opportunity to practise the sub-games tasks in separate tutorials before each sub-game in order to help candidates become familiar with the game.

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Revelian's Range of Assessments

Revelian has a number of psychometric assessments designed to reliably and validly measure key candidate characteristics. These assessments are summarised below.

Revelian Cognitive Ability Test (RCAT)

Predicts a candidate's future work performance

The Revelian Cognitive Ability Test measures the candidate's level of general mental ability. This is an indication of the candidate's capacity to acquire, integrate, recall and apply new information. An analysis of 85 years of personnel selection has shown that general mental ability is the best predictor of performance in a wide range of roles.

- 51 items
- 20 minute time-limit
- The test can be completed either remotely or under supervised conditions
- Is a predictor of the candidate's potential work performance

Revelian Verbal Reasoning Test (RVRT)

Predicts verbal reasoning element of future work performance

The Revelian Verbal Reasoning Test measures the candidate's level of verbal reasoning. This is an indication of the candidate's capacity to understand relationships and concepts framed in words, and solve problems using that information. Research has indicated verbal reasoning as a predictor of future job performance, particularly for roles that require the ability to comprehend and analyse written information.

- 35 items, 10 minute time limit
- Can be completed either remotely or under supervised conditions
- Is a predictor of the candidate's work performance, particularly for roles involving the use of verbal reasoning ability

Revelian Numerical Reasoning Test (RNRT)

Predicts a candidate's numerical reasoning element of future work performance

The Revelian Numerical Reasoning Test measures the candidate's level of numerical reasoning. This is an indication of the candidate's capacity to understand numerical relationships and concepts and problem solve using that information. Research has indicated numerical reasoning as a predictor of future job performance, particularly for roles that require individuals to process large amounts of data, such as complex technical and managerial roles.

- 25 items, 12 minute time limit
- The test can be completed either remotely or under supervised conditions

- Is a predictor of the candidate's work performance, particularly for roles involving the use of numerical reasoning ability

Revelian Abstract Reasoning Test (RART)

Predicts abstract reasoning element of future work performance.

The Revelian Abstract Reasoning Test measures the candidate's level of abstract reasoning. This is an indication of the candidate's capacity to solve conceptual problems by identifying relationships and analysing patterns. Research has indicated abstract reasoning as a predictor of future job performance, particularly for roles that require the ability to learn new skills quickly, problem solve and or develop strategies/solutions.

- 32 items, 10 minute time limit

- Can be completed either remotely or under supervised conditions

- Is a predictor of the candidate's abstract work performance, particularly for roles involving the use of abstract reasoning ability

Revelian Values Inventory (RVI)

Match the candidate to the organisation.

The Revelian Values Inventory predicts potential cohesion between company values and a candidate's personal values; linked to organisation commitment.
- Un-timed (approximately 5- 10 minutes, candidate can sit the test remotely or supervised)
- Matches candidate's values to organisational values

Emotional Intelligence Assessment (MSCEIT)

Identifies candidates most likely to have greater career success.

The MSCEIT assesses an individual's ability to understand their own emotions, the emotions of others' and to use emotions to enhance thought.
- Un-timed (approximately 45 minutes, candidate can sit the test remotely or supervised)
- Also available in a development version for use amongst existing staff

Revelian 16 Personality Factor Questionnaire (16PF®)

Measures core personality traits influencing behaviour.

The 16PF Questionnaire (16PF®) is a widely recognised personality test and measures core personality traits that influence behaviour.
- Un-timed (approximately 30-minutes, candidate can sit the test remotely or supervised)
- Predicts work behaviour, communication style and performance

Revelian Work Preference Profile (RWPP)

Matches a candidate's preference to the job.

Work Preference Profiling predicts potential job satisfaction by matching the candidate's preference to the task requirements of the job. This type of assessment is linked to predicting job satisfaction.

- Un-timed (approximately 10 -15 minutes, candidate can sit the test remotely or supervised)
- Matches a candidate's preference to the job profile
- Supervisor or incumbent completes a Position Analysis prior to the candidates being compared to the role
- Predicts future job satisfaction

Revelian Behavioural Profile (RBP)

Measures workplace behaviour.

Individual behaviour relates to communication, team cohesion, performance and effectiveness. The Revelian Behavioural Profile looks at the work style behaviours of the individual.

- Un-timed (approximately 15 minutes, candidate can sit the test remotely or supervised)
- The assessment measures how people are likely to respond to challenges, the amount of interpersonal interaction they require, how they will adapt to the pace of a work environment, and how compliant they will be
- As personal self- awareness of behaviour increases, so does productivity and performance
- Also available in a development version for use amongst existing staff

Revelian Work Safety Assessment (RWSA)

Measures a candidate's workplace safety behaviour.

The Workplace Safety Assessment identifies those most likely to embrace safe work practices and less likely to exhibit counterproductive safety behaviour.

- Un-timed (approximately 10 -15 minutes, candidate can sit the test remotely or supervised)
- Linked to lower absenteeism, lower compensation costs, and a more trustworthy team
- Measures factors such as:
    - Safety Control
    - Risk Aversion
    - Stress Management
    - Drug Aversion
    - Attitudes towards Violence
- Also available in a development version for use amongst existing staff

Revelian Work Reliability Scale (RWRS)

Measures a candidate's level of workplace integrity.

The Work Reliability Scale measures attitudes towards workplace theft and dishonesty. These have been shown to link with counterproductive behaviours such as theft, absenteeism, and property damage.

- Un-timed (approximately 10 minutes, candidate can sit the test remotely or supervised)
- Identifies candidates who have the potential to steal, be dishonest, take unwarranted sick days or be uncooperative with their team
- Linked to fraudulent behaviour, shrinkage, sick leave and unexplained losses