



INFORMATION BRIEF

Criteria Attention Skills Test (CAST)



INFORMATION BRIEF

Criteria Attention Skills Test (CAST)

Predict job performance in roles requiring focus, concentration, and attention skills.

The Criteria Attention Skills Assessment (CAST) measures a person's concentration and ability to sustain focus on one or more tasks while avoiding distractions. It's a short assessment that can predict performance for occupations ranging from skilled manufacturing jobs to casino gaming dealers, video surveillance operatives, pilots, and drivers.

The CAST is ideal for a variety of entry- to manager-level roles requiring sustained focus and concentration.

MEASURES

Concentration and ability to sustain focus on one or more tasks while avoiding distractions



PREDICTS

How candidates will perform in roles requiring focus, concentration and attention skills



QUESTIONS

Candidates complete four tasks which assess different aspects of attention



TIME

CAST is untimed but it takes approximately 10 minutes to complete



What is the CAST?

The CAST is a sub-test of the Mini-Cog Rapid Assessment Battery (MRAB), consisting of the three Attention tasks together with the Perceptual Reaction Time task. The CAST assesses attention skills and reaction times, that can predict performance across positions requiring sustained focus and attention while avoiding distractions.

The assessment is made up of four tasks, which must be completed on a desktop or laptop computer, due to the response requirements. Each task features images involving specific shapes and/or color shades which require a particular response. The candidate is required to respond as quickly as possible to indicate a specified feature of the image, by using a particular key on the keyboard. Candidates are instructed to respond as quickly and accurately as possible, as their reaction times and accuracy will impact their score, although the assessment is not time limited.

The questions do not contain any English language; only the instructions require English comprehension. Tutorials provide the opportunity for candidates to practice and ensure they understand the instructions before beginning each scored section of the assessment.

The assessment is streamed randomly: each candidate receives the questions in a different order. This means the assessment offers a relatively unique experience for each candidate, while maintaining the same number and complexity of questions.

Why use the CAST?

The CAST measures a specific component of cognitive aptitude, which is related to improved job performance, productivity, and training outcomes. The CAST enables you to assess for a candidate's "mental fitness," reaction times, concentration, and focused attention skills. The CAST is best suited for roles where concentration and attention skills are critical for job performance.

The CAST tasks are designed to assess a candidate's ability to "multi-task" or concentrate on two or more things simultaneously, maintain concentration on a task for a sustained period of time, focus on important information, and ignore irrelevant distractions, while responding quickly. Therefore, the assessment distinguishes between candidates who have a superior ability to remain responsive and highly focused over sustained periods, while ignoring distractions.

In addition, the CAST was designed to minimize gender and racial/ethnic bias while maintaining the validity of the assessment. The CAST has been validated on relevant roles, demonstrating that the test is highly predictive of job performance in roles requiring sustained focus, concentration, and attention skills.

Which jobs is the CAST applicable for?

The CAST is particularly suited towards entry- to manager-level roles, where employees are required to concentrate over extended periods, to stay focused even during periods of inactivity, to stay vigilant to important information while ignoring distractions, and to act promptly and accurately when required. Some of the more common roles our customers use the CAST for include:

- ✓ Truck Drivers
- ✓ Security Guards
- ✓ Surveillance Monitors
- ✓ Gaming Dealers
- ✓ Air Traffic Controllers

What is the candidate experience like?

Test on laptop or desktop device

Candidates must complete the CAST on a device with a keyboard, due to the response requirements.

Example questions

Candidates are presented with instructions and can complete a tutorial before each section of the assessment. In the assessment itself, no instructions are presented: the candidate is simply presented with the stimulus (numbers, or shapes) and must respond as quickly and accurately as possible, based on the previously provided instructions. The kind of stimulus provided is shown in this example.

Example question

How many numbers appear in this sequence?

5 5 5 5

Ensuring a fair candidate experience

Like all of our assessments, the CAST can be completed remotely over the internet under unsupervised conditions. This provides a high level of flexibility and convenience for the candidate.

We adopt the following best practice strategies to ensure online security.

Tutorials

Candidates are presented with instructions, and can complete a tutorial and receive feedback on incorrect responses before each section of the assessment. This ensures that candidates are familiar with the requirements of the task before beginning the scored section. If it becomes apparent that the task format is not accessible for the candidate, they can leave the assessment and contact the recruiter to discuss reasonable adjustments.

Secure online assessment

Our online testing engine is delivered using secure web technology, which allows us to ensure that assessment security and integrity is maintained, and that assessment time is tracked accurately.

Detailed assessment session logging

From the moment the candidate logs in to start their assessments to the moment they finish, we create detailed test logs of the candidate's testing session, including time spent in the assessment, internet connectivity, and individual and actions within each question.



Reporting

After candidates complete testing, you can access two different reports.

- ✓ A **Candidate Summary Report** that provides a high-level overview of a candidate's results on the CAST and any other Criteria assessments they've completed.
- ✓ A **Candidate Score Report** that provides detailed information of a candidate's scores on the CAST.

Candidate Summary Report

This report gives you a short, simple summary of a single candidate's results across each test they've completed and – if you've enabled it – their Ranking Score (based on a weighted average of their performance across individual tests).

In the candidate summary, you'll see an overall percentile score that reflects the candidate's overall attention skills, in comparison to previous administrations to candidates from similar organizations and industries. You'll also see the percentile score for each of the four aspects of attention which are measured in the CAST.



Candidate Score Report

The score report gives you more detailed results for a single candidate. It includes:

- ✓ Candidate information (name, position, date completed)
- ✓ Summary Information on the CAST
- ✓ A **Results Summary**, which displays the candidate's overall percentile score.
- ✓ A **Results Details** section, explaining the candidate's percentile score on each of the aspects of attention assessed within the CAST: Divided Attention, Selective Attention: Vigilance, Selective Attention: Filtering, Perceptual Reaction Time.
- ✓ A **Score Details** section, providing further explanation of the scores.

Vince Sample

Position: Sample Test Portfolio
Test Date: June 5, 2023
Test Event ID: ABC-D1Fg-2H3I-jklmN | Test Ver: 1.0



**APTITUDE TEST**
Criteria Attention Skills Test

Results Summary
68
Overall Score Percentile

The CAST is a short test that measures attention and concentration. Because it measures the ability to sustain focus and maintain concentration, the CAST can help predict employee success in a wide variety of positions, including drivers, pilots, skilled manufacturing jobs, gaming dealers, and video surveillance workers.

Results Details

**Divided Attention Percentile 22**
Measures the ability to "multi-task" or concentrate on two or more things simultaneously.

**Selective Attention: Vigilance Percentile 91**
Measures the ability to maintain concentration on a task for a sustained period of time.

**Selective Attention: Filtering Percentile 82**
Measures the ability to focus on important information and ignore irrelevant distractions.

Perceptual Reaction Time 27 Measures the ability to recognize and respond to stimulus. 

Score Details

Divided Attention
The Divided Attention task measures a person's ability to "multi-task" or concentrate on two or more things simultaneously. Examples of jobs for which elevated divided attention abilities are an asset include: cooks in a restaurant, airline pilots, air traffic controllers, and police officers.

Selective Attention: Vigilance
The Vigilance task measures a person's ability to maintain concentration on a task for a sustained period of time. Examples of jobs for which selective attention is important include: drivers, security guards (ex. video surveillance), surgical technologists, and gaming dealers.

Selective Attention: Filtering
The Filtering task measures an individual's ability to focus on important information and ignore irrelevant distractions. Together with the Vigilance Task, Filtering provides an indication of the test subject's selective attention, the ability to sustain concentration and ignore distractions - a characteristic important to job performance in a wide variety of jobs, including drivers, security guards (ex. video surveillance), surgical technologists, and gaming dealers.

Perceptual Reaction Time
The Perceptual Reaction Time task measures one of the most basic cognitive processes: perceptual reaction time, or the speed at which a person recognizes and responds to a

Psychometric properties

Normative sample

The CAST was developed as a subset of the MRAB. A sample of all applicable test scores was used to generate the current normative data for the CAST.

Construct validity

Construct validity is established through evidence for convergence, or the relationships demonstrated between a test with other well-established tests that are purported to measure the same construct or attribute. The CCAT has demonstrated construct validity through its strong correlations with other leading measures of cognitive aptitude.

The CAST demonstrated a small-moderate correlation ($r = .34$, $N = 355$) with the Criteria Cognitive Ability Test (CCAT), demonstrating that the CAST measures a specific but distinct aspect of general mental ability (or “g”). The MRAB (of which the CAST forms a sub-set) was seen to significantly correlate with the CCAT ($r = 0.55$). Therefore, these correlations provide suitable evidence for the construct validity of the CAST.

Criterion-related validity

The criterion-related validity of the CAST has been established by various validity studies with employers in different industries. One such validity study was conducted with a sample of 59 bus routers employed by a regional transportation company. The bus routers' job consisted of utilizing software that required them to concentrate and multi-task in order to process and interpret multiple real-time data points on the movement of the company's buses, to ensure that the buses ran on time. There was a moderate-strong, statistically significant correlation (.42) between job performance and CAST score.

Another such study focused on 137 material handler workers at a production company and found that the CAST correlated $r = .25$ ($p < .05$) with performance ratings and $r = .23$ ($p < .01$) with active employment status. Those who scored high (top quartile) on the CAST received 31% higher performance ratings on average compared with those who scored low (bottom quartile).

In a final study involving 47 dental technicians at a dental care business, the CAST correlated $r = .26$ ($p < .05$) with technical skill ratings; those who met a recommended score on the CAST (60%+) averaged 24% greater technical skill ratings compared with those who failed to meet the recommended score.

Case Study

Criteria Helps Armorous Improve Quality of Hire for Security Officers

Armorous is a security agency that staffs security officers across a wide range of contracts. Armorous partnered with Criteria to assess candidates who were applying for security officer roles. The company opted to use three assessments: the Criteria Attention Skills Test (CAST), the Employee Personality Profile (EPP), and the Workplace Productivity Profile (WPP).

The use of the assessments helped Armorous select candidates more likely to have higher performance ratings and less likely to turn over. According to one report from the American Staffing Association, turnover in the staffing industry averages around 350% per year. According to Armorous' most recent annual calculation, Armorous' turnover was standing at a remarkable 22%.

[View case study](#)



