DAT™ Next Generation

FAQs

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DAT™ Next Generation Frequently Asked Questions

What does DAT™ Next Generation measure?

The Differential Aptitude Tests, or DAT for short, are a battery of tests designed to assess the levels of a number of cognitive abilities and aptitudes.

Measuring these cognitive abilities can give an indication of an individual's aptitudes across a wide range of occupations. In addition to this, the DAT tests are also used to predict success in training programs and are good overall predictors of performance in many job roles.

DAT Next Generation (Next Gen or NG) is the latest version containing the five most popular sub-tests:

- Verbal Analogies measures the ability to reason with concepts framed in written words.

- Numerical Calculations measures the ability to carry out arithmetic computation and reason with numerical data.

- Numerical Sequences measures inductive reasoning using numerical content and elementary arithmetic.

- Abstract Reasoning measures the ability to solve unfamiliar problems and learn new things quickly.

- Space Relations measures levels of spatial awareness and the ability to visualise a three-dimensional object or diagram from a two-dimensional one.

N.B. The previous DAT editions contained a test of mechanical reasoning. This test has been replaced by the Bennett Mechanical Comprehension Test (BMCT-II), which measures the same construct and is equivalent in terms of level of difficulty. BMCT-II is item-banked but it is not adaptive

Why is there a new edition of DAT?

Since its launch in the 1940s, there have been a number of language adaptations and revisions to the DAT. The most recent versions, however, are over ten years old and there is inconsistency in terms of test length and content in various language versions. This new adaptation gives a consistent test that can be used across different languages.

DAT is being increasingly used as an online screener of cognitive abilities in a recruitment context. The current versions are all fixed test forms, meaning that each test-taker receives the same set of items. Over time, the same few items have become over-exposed.

With DAT NG, items are drawn from a large bank, ensuring that that the chances of two test-takers receiving the same set of items is minimal, but the tests are nevertheless equivalent in terms of difficulty. Item-banking reduces the chances of items being over-exposed or people sharing items with others.

DAT NG has a more sophisticated scoring system than previous versions. The test is scored using computer adaptive testing (CAT). CAT works by tailoring the difficulty of items to a test-taker, meaning that those who answer the items correctly will receive more difficult ones. This can offer a more positive test-taker experience.

DAT NG is suitable for online completion in both an unsupervised (unproctored) and supervised environment, such as assessment or development centres.

Why are we using computer adaptive testing?

Compared with traditional fixed form tests (like the current DAT versions) scored using classical test theory, computerised adaptive testing (CAT) presents a modern method of delivering tests to job applicants or students. One of the key features of CAT is that the difficulty of items presented to each test-taker is tailored to their level of ability, meaning that those who answer the items correctly will receive more difficult ones. Despite this, it is possible to compare test scores. Some of benefits of DAT NG include:

Shorter tests:

The DAT NG tests are shorter tests than previous DAT versions. For supervised testing this can translate into financial benefits, as testing venues, supervisors and administrators need to be booked for shorter periods. For unsupervised testing, test-takers are less likely to become distracted or lose focus while completing the test.

Item-banking:

As the test items are selected from a large bank, they do not become over-exposed. There is little benefit to test-takers sharing the items as each one will receive a different set of items. This maintains the integrity of the test. Item-banking is especially important for tests completed in an unsupervised environment.

Fair:

DAT NG has been designed so that examinees are all measured with the same level of precision, even though they all potentially see different items. This makes the test extremely fair from a psychometric perspective. In fact, despite being shorter, CAT generally produces more reliable scores than classically scored tests.

Test taker experience:

A CAT will provide an appropriate challenge for each examinee. Low ability examinees are not discouraged or intimidated. High ability examinees enjoy receiving difficult items. If a job applicant receives a poor candidate experience during the assessment process, this may impact on their opinion of the hiring organisation.

Increased motivation:

Because of the better experience, there is likely an increase in examinee motivation. Examinees with lower levels of ability feel better, whilst those with higher levels feel challenged. Both will try harder than with a conventional test.

How can we ensure that the randomly generated adaptive tests are equivalent in terms of difficulty and item content?

Each item is coded by difficulty on a finely incremented scale. Upon test completion, the test-taker is assigned a theta score. Somebody answering 15 difficult questions will receive a different theta score to someone answering 15 easy items.

CAT is a further adaptation to item-banking, presenting items to suit the response of the test taker. If the responder answers an item correctly, the next item will be harder and vice versa.

Our studies have shown that a reliable score can be obtained with 15 items. Therefore, the tests are set to a fixed length of 15 items.

What languages are available?

DAT Next Gen tests and reports are available in following languages:

November 2018

•Verbal Analogies. French

•Numerical Calculations. French

•Numerical Sequences. French

•Abstract Reasoning. French

•Space Relations. French

Q4 2018

· Verbal Analogies. UK English

· Numerical Calculations. UK English

· Numerical Sequences. UK English

· Abstract Reasoning. UK English

· Space Relations. UK English

The above tests in Dutch and a number of other languages will be released in 2019.

What is happening to the previous DAT versions?

Previous DAT versions will still be available in certain languages for existing clients, but should only ever be used for proctored/supervised administration or for development purposes. You should contact your local TalentLens office or representative for advice. **We strongly advise customers to adopt the new tests at their earliest possible convenience.**

How long does it take to complete the test?

Each test contains only 15 items. When 15 items have been answered the test finishes. If a candidate chooses not to answer 15 items, they will not obtain a score.

All DAT NG tests are untimed, and in our studies the average time taken for someone to complete 15 questions is 12 minutes.

What norms are available for DAT Next Gen?

The following norms will be available at launch.

DAT NG Test	Language	Norms
· All subtests	English	· US built norms at launch:
		· High school diploma/GED
		· Some college
		· Bachelor's degree
		· General Population

Can I still use my own custom (bespoke) company norms from previous DAT versions?

It may be possible to map custom norms to DAT NG for a fee. Please contact your local customer service team for further information.

Is there a paper version of the test?

There are no paper versions of DAT NG but a number of previous DAT tests exist in paper format. Contact your local TalentLens office or agent for further information.

What research is there to demonstrate that the new and old tests are equivalent?

Comparison	Correlation co-efficient
DAT PCA Verbal Reasoning vs. DAT Next Gen: Verbal Analogies	0.82
DAT PCA Numerical Reasoning vs. DAT Next Gen: Numerical Calculations	0.64
DAT PCA Abstract Reasoning vs. DAT Next Gen: Abstract Reasoning	0.64
DAT PCA Space Relations vs. DAT Next Gen: Space Relations	Coming Soon
DAT PCA Mechanical Reasoning vs BMCT-II	0.81
DAT Next Gen: Numerical Sequences vs GAT (SHL test)	0.54

What reports will be available?

Profile reports containing an overall percentile score (against the chosen norm group) is presented. In addition the T-score, STANINE score, and STEN score are reported in the Additional Technical Information section of the candidate's Profile Report.

Each test-taker receives a raw theta score, which is converted to a standardised score for interpretation purposes, and shown in the report. Theta scores are available in the platform dashboard.

As everyone must complete 15 items, and items carrying different weighting in terms of difficulty, the number of items answered correctly is of little value when comparing scores.

What do I do if I suspect that an applicant has cheated on the unsupervised DAT?

If you suspect that a candidate cheated on the assessment, you may re-test the candidate in a supervised setting, using the online or paper version of the test. If the test was completed unsupervised for screening purposes, we strongly advise re-testing a candidate at a later stage in the process, but the decision is up to the customer.

Can I transfer assessment inventory from older versions of DAT?

It is not possible to transfer inventory.

Can DAT be completed on a mobile phone or tablet?

We recommend that the DAT Next Gen be completed on a desktop or laptop computer with a dependable internet connection.

Can DAT be linked to an Applicant Tracking System (ATS)?

Generally the test can be linked, but contact us for further information.

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