

Standard Age Score (SAS)

The standard age score is based on the underlying raw score and enables you to compare your own pupils with a larger, nationally representative sample of pupils of the same age that have taken the test prior to publication.

The national average standardised score is 100, irrespective of the difficulty of the test, and so it is easy to see whether a pupil is above or below the national average.

Stanine (ST)

Stanines (short for 'standard nines') are a simplification of the standard age score that divides the SAS into nine broader bands. They show how a student performed on a test in comparison with the national sample, with 9 being the highest score and 1 being the lowest.

The broad nature of stanines minimises the over-interpretation of small, insignificant differences among test scores. Stanines are therefore particularly useful in reporting test information to pupils and to parents, as they are relatively easy to understand and interpret.

The Sub-tests

The screener comprises five computer-controlled, item-timed sub-tests.

Since speed of response to numerical questions is the measure used in the *Dyscalculia Screener*, we take into account whether a learner responds slowly to the questions, or is simply a slow responder. We do this by including a test of simple reaction time which is the first sub-test that learners see. The reaction times on the following sub-tests are then adjusted to take this measure into account.

	Type	Name
1	Reaction Time	Simple Reaction Time
2	Capacity	Dot Enumeration
3	Capacity	Numerical Stroop
4	Achievement	Arithmetic Achievement (Addition)
5	Achievement	Arithmetic Achievement (Multiplication)

Capacity Tests

Dot Enumeration asks the learner to compare the number of dots on half of the screen with the numeral on the other half of the screen, and to press a key according to whether the two numbers match.

The learner has to judge the number of dots in a visual array of up to ten dots. To do this the learner will need the capacity for enumerating the sets of dots, either by seeing immediately that there are one, two, three or four dots in the set without needing to count them (this is called 'subitising'), or by counting the larger sets of dots. The learner will also have needed to learn the meaning of the numerals 1 to 10; that is, they will need to know what numerosity each numeral denotes.

Numerical Stroop asks the learner to select the larger of two numbers. This is a test of the capacity to order numerosities by their size, and also requires a fluent understanding of the numerals.

Achievement Tests

For younger learners, this task consists only of **addition**; for older learners there is also **multiplication**. If a learner is aged 10 or over then he or she will see the multiplication sub-test. The problems are presented on the screen with an answer. The learner has to judge as quickly as possible whether the answer shown is correct.

Dyscalculia Screener Group Report

Organisation/School: City Road Middle School

Group:

No. of students: 8

Name	Date of Birth	Date of Test	Simple Reaction Time		Dot Enumeration		Numerical Stroop		Addition		Multiplication	
			SAS	ST	SAS	ST	SAS	ST	SAS	ST	SAS	ST
Seema Ahmed	01/01/99	30/09/09	73	1	59*	1	59*	1	68*	1	59*	1
Adam Baker	01/01/99	30/09/09	69	1	59*	1	59*	1	68*	1	59*	1
Michael Jones	01/01/99	30/09/09	73	1	59*	1	59*	1	79*	2	59*	1
Christopher Moore	01/01/99	30/09/09	76	2	59*	1	59*	1	67*	1	59*	1
Neil Parvin	08/08/01	30/09/09	75	2	59*	1	59*	1	72*	1	64*	1
Alison Smith	01/01/99	30/09/09	68	1	59*	1	59*	1	64*	1	59*	1
Jenny Walker	06/07/09	30/09/09	117	7	77*	2	121*	2	97*	5	64*	1
Kristina Woods	01/01/99	30/09/09	73	1	59*	1	59*	1	79*	2	59*	1

Note: SAS=Standard Age Score, ST=Stanine

An asterisk (*) next to a standard age score indicates that the learner answered a number of questions incorrectly. There may be various reasons for this behaviour. The individual learner report will provide further explanation. Fields that display (-) indicate that the learner is under 10 years old and therefore not required to take the sub-test.