

What is the *BAS3*?

The *British Ability Scales 3 (BAS3)* is a collection of individual tests that are used to assess the general thinking and reasoning skills of children aged from 3 to 17 years. The tests are designed to measure abilities that are important for learning, such as problem solving, remembering things, working out how things relate to one another and understanding language.

Why has my child been assessed?

Michael is a Year 9 student at Sunnyside Academy where he has been on roll since May 2011. He has a diagnosis of Asperger's Syndrome. Sunnyside raised Michael as a concern with the Psychology Service in October 2011 due to increasingly 'autistic' behaviour (including high levels of hand flapping) and a lack of academic progress at school. Sunnyside felt that he was not accessing the curriculum and wondered whether this was because of underlying cognitive difficulties or because of other factors. Michael's time at school is currently split between mainstream lessons and seven hours of one-to-one teaching from a teaching assistant in the library. In Year 4 at primary school Michael had involvement from Speech and Language Therapy and the Autistic Spectrum Condition (ASC) Advisory Teacher. Neither are currently involved although school have recently made a referral to Verity Suchly (ASC Advisory Teacher). On 28 November 2011 I observed Michael for approximately an hour in the library during a one-to-one science and maths lesson and observed him in a mainstream Design lesson for half an hour. On 29 November I returned to do a cognitive assessment with Michael and to find out his views about certain aspects of school.

Why was the *BAS3* used to assess my child?

The *BAS3* was chosen to assess your child as the results provide an overview of his cognitive strengths and weaknesses and highlight the areas of thinking with which he may need help. Your child's ability to cope with the types of tests included within the *BAS3* is very important and may affect the extent to which he progresses at school. When used alongside other sources of information (i.e. teacher observation, parental feedback), the *BAS3* results help build up a picture of your child, which allows us to understand any difficulties he might be experiencing. We can then decide how to deal with those difficulties.

What do the *BAS3* results show?

Your child completed the tests that were most suited to identifying his needs. The tests in the *BAS3* combine to produce different types of scores. A summary of these scores and the abilities they test is shown below.

| Type of score | Measures your child's ability to... |
|------------------------------|---|
| Verbal Ability | <i>Understand and use spoken words and language.</i> |
| Non-verbal Reasoning Ability | <i>Work out why numbers, pictures or patterns are linked with others.</i> |
| Spatial Ability | <i>Remember and make sense of shapes and the way they are arranged.</i> |
| General Conceptual Ability | <i>Use all three kinds of ability – verbal, spatial, non-verbal reasoning. This score summarises your child's overall thinking and problem solving abilities.</i> |
| Special Non-verbal Composite | <i>Use two kinds of ability – spatial and non-verbal reasoning. This score is used when children are unable to do tests involving words, or when they would find such tests very difficult.</i> |

How is the *BAS3* scored?

The *BAS3* scores are presented in percentiles, showing your child's rank when compared with what would be expected for 100 children of the same age. For example, if your child ranked in the 55th percentile, it would mean that he scored higher than 55 out of 100 children of the same age.

About two thirds of children will rank between the 16th and 84th percentile, so percentiles help us to decide how typical or unusual your child's score is.

Descriptions of the percentiles are provided below.






| Percentile | Description |
|-------------------------------------|---------------|
| 1 st – 2 nd | Very Low |
| 3 rd – 8 th | Low |
| 9 th – 24 th | Below Average |
| 25 th – 74 th | Average |
| 75 th – 90 th | Above Average |
| 91 st – 97 th | High |
| 98 th – 99 th | Very High |

Summary of the *BAS3* scores

Name: ID 0009

Age at Test: 14 years

Date tested: 29/11/11

| | Very Low | Low | Below Average | Average | Above Average | High | Very High | Percentile |
|------------------------------|---|-----|---------------|---------|---------------|------|-----------|------------------|
| Verbal Ability |  | | | | | | | 55 th |
| Non-verbal Reasoning Ability |  | | | | | | | 4 th |
| Spatial Ability |  | | | | | | | 27 th |
| General Conceptual Ability |  | | | | | | | 18 th |
| Special Non-Verbal Composite |  | | | | | | | 8 th |

Things that may have affected your child's scores:

Michael presented as keen, compliant and polite throughout the observation and individual work - I very much enjoyed working with him. When observing Michael I noticed that in class he tends to wait for reassurance before starting work or completing the next example. Interestingly, within the structured setting of the cognitive assessment this was not an issue. During lessons that I observed and during the assessment that I did with him, Michael's levels of arousal (i.e. how anxious/excited he is) appeared to be indicated by how often he flaps his hands and pushes his fist into his open palm. I noticed that this happened more when Michael was faced with difficult items in the assessment. During timed subtests Michael appeared to have no urgency to complete the tasks as quickly as possible. This may have affected his scores in Recall of Objects and Speed of Information Processing.

What do these scores mean?

Your child ranks in the:

- **55th** percentile for **Verbal Abilities**, meaning he has performed as well as or better than 55% of the national sample. This suggests that his ability to deal with words and use them to think about and solve problems is **Average**.
- **4th** percentile for **Non-verbal reasoning Abilities**, meaning he has performed as well as or better than 4% of the national sample. This suggests that his ability to think about and solve problems involving numbers and patterns is **Low**.
- **27th** percentile for **Spatial Abilities**, meaning he has performed as well as or better than 27% of the national sample. This suggests that his ability to deal with shapes and space and use them to think about and solve problems is **Average**.
- **18th** percentile for **General Conceptual Abilities**, meaning he has performed as well as or better than 18% of the national sample. This suggests that his ability to deal with a broad range of thinking and problem solving tasks is **Below Average**.
- **8th** percentile for **Special Non-verbal Composite score**, meaning he has performed as well as or better than 8% of the national sample. This suggests that his ability to think spatially and/or non-verbally is **Low**.

The BAS3 individual test results

Your child's scores on the individual tests that make up the BAS3 (Core, Diagnostic and Achievement) are provided in the following tables.

Core tests:

These tests measure your child's thinking abilities and contribute to the overall results shown on the previous page.

| Name of test | Task your child was asked to complete... | Measures your child's ability to... | Percentile | Description of results |
|-------------------------------|--|--|------------------|------------------------|
| Matrices | <i>Shown an incomplete grid of abstract shapes and asked to identify the shape (from a multiple-choice selection) which completes the pattern.</i> | <ul style="list-style-type: none"> • Recognise the similarities and relationships between sets of shapes • Work out and use rules • Use reasoning and problem solving skills | 5 th | Low |
| Pattern Construction | <i>Shown a 2- or 3-dimensional design using blocks, squares or cubes and asked to copy it within a time limit.</i> | <ul style="list-style-type: none"> • Accurately observe, analyse and match designs • Solve a problem under time pressure • Control hand movements | 31 st | Average |
| Quantitative Reasoning | <i>Shown a series of number patterns and asked to work out the missing number in the series.</i> | <ul style="list-style-type: none"> • Solve problems using numbers • Use reasoning and problem solving skills | 8 th | Low |
| Recognition of Designs | <i>Shown one abstract line drawing for a short time; then shown a series of drawings (which includes the original) and asked to identify the original drawing.</i> | <ul style="list-style-type: none"> • Remember and recognise abstract designs | 31 st | Average |
| Verbal Similarities | <i>Three linked items (e.g. banana, apple and orange) are listed out loud; then asked to describe the main link between them (e.g. they are all types of fruit).</i> | <ul style="list-style-type: none"> • Use expressive language (the ability to say things) • Identify, group and describe similarities between items • Use knowledge of words • Use reasoning skills and express ideas | 54 th | Average |

| | | | | |
|-------------------------|--|---|------------------|---------|
| Word Definitions | <i>Asked to explain the meaning of individual words.</i> | <ul style="list-style-type: none"> • Use expressive language (the ability to say things) • Use knowledge of words • Describe the meaning of spoken words | 58 th | Average |
|-------------------------|--|---|------------------|---------|

Achievement tests:

These tests measure your child's abilities in literacy and numeracy. The results enable his educational progress to be compared against what might be expected from his scores on the other BAS3 tests.

| Name of test | Task your child was asked to complete... | Measures your child's ability to... | Percentile | Description of results |
|----------------------|--|---|------------------|------------------------|
| Number Skills | <i>A selection of number-based tasks, including adding, subtracting, multiplying and dividing.</i> | <ul style="list-style-type: none"> • Solve problems and calculations using numbers | 6 th | Low |
| Spelling | <i>Write and spell correctly words that are dictated to them.</i> | <ul style="list-style-type: none"> • Remember and use the correct spelling of common words | 23 rd | Below Average |
| Word Reading | <i>Read aloud a series of words.</i> | <ul style="list-style-type: none"> • Recognise and read individual words | 32 nd | Average |

Diagnostic tests:

These tests measure your child's abilities in literacy and numeracy. The results enable his educational progress to be compared against what might be expected from his scores on the other BAS3 tests.

| Name of test | Task your child was asked to complete... | Measures your child's ability to... | Percentile | Description of results |
|----------------------------------|---|---|-----------------|------------------------|
| Recall of Digits Forward | <i>Listen to a series of numbers and repeat them.</i> | <ul style="list-style-type: none"> • Listen and recall simple number sequences • Use short-term memory | 3 rd | Low |
| Recall of Digits Backward | <i>Listen to a series of numbers and repeat them backwards (i.e. in reverse order).</i> | <ul style="list-style-type: none"> • Listen and recall reversed number sequences • Reverse number sequences | 2 nd | Very Low |

| | | | | |
|---|---|--|------------------|---------------|
| Recall of Objects: Immediate Verbal | <i>Shown a display card containing a series of drawn objects and, after the card has been taken away, asked to name as many of the objects as possible.</i> | <ul style="list-style-type: none"> • Name objects • Remember and recall a series of objects • Use expressive language (the ability to say things) | 1 st | Very Low |
| Recall of Objects: Immediate Spatial | <i>After having named the objects in Recall of Objects: Immediate Verbal, asked to recreate the arrangement of the original display using a set of cards with the objects on and a blank grid.</i> | <ul style="list-style-type: none"> • Remember and recall a series of objects • Remember and recall the arrangement of objects | 1 st | Very Low |
| Recall of Objects: Delayed Verbal | <i>15-20 minutes after completing Recall of Objects: Immediate Verbal, asked to name as many of the objects as possible without any further sight of the display.</i> | <ul style="list-style-type: none"> • Name objects • Remember and recall a series of objects • Remember and recall the arrangement of objects • Use expressive language (the ability to say things) | 2 nd | Very Low |
| Recall of Objects: Delayed Spatial | <i>After recalling the names of the objects in Recall of Objects: Delayed Verbal, asked to recreate the arrangement of the original display using a set of cards with the objects on and a blank grid.</i> | <ul style="list-style-type: none"> • Remember and recall a series of objects • Remember and recall the arrangement of objects | 1 st | Very Low |
| Recognition of Pictures | <i>Shown a picture of one or more objects for a short time; then shown another picture containing the same objects plus extra objects; then asked to point to the original ones.</i> | <ul style="list-style-type: none"> • Recognise and remember pictures of objects • Use short-term memory | 10 th | Below Average |
| Speed of Information Processing | <i>Shown a row of figures (e.g. circles containing small boxes) or a series of numbers and asked to identify either the circle containing the most boxes or the highest number, as quickly as possible.</i> | <ul style="list-style-type: none"> • Complete simple number comparisons quickly • Perform thinking tasks quickly and accurately | 4 th | Low |

Summary of the *BAS3* assessment

Views of the child

Michael said that he enjoyed doing the assessment as we were working in a quiet calm room with "no other pupils making silly noises and no teachers shouting". He said that he likes being in the library at school as the staff keep out "all the noisy kids" and his support assistant "has time to teach me properly". When I asked Michael what he meant by "teach me properly" he said, "they explain properly so that I know what I've got to do".

Views of parents

Michael's mother said that the results of the cognitive assessment agreed with her views on her son's understanding; she reported that she has been trying to tell school that he is not lazy and that he needs more time learning through discussions and learning with teachers who put him at ease rather than writing all the time.

Views of psychologist: Next steps

Michael has an unusual pattern of attainments for a child on the autistic spectrum as his non-verbal ability is a relative area of weakness. Although he scored well within the average range for verbal ability it is important to note that there are aspects of language with which he has got difficulties. For instance, Michael tends to understand and use language in a literal manner. Those working with Michael will need to be aware of this. Michael's performance in the cognitive assessment suggests that his poor performance at school is influenced by factors other than cognitive ability. Bringing together evidence from observation, test results and discussion suggests that Michael's curriculum access is currently limited by the following factors: difficulty with consistently maintaining focus on adult-directed/adult-chosen tasks; inconsistent motivation for adult-directed/adult-chosen tasks; anxiety (which appears currently to be strongly linked to a fear that teachers will shout); difficulties with non-verbal reasoning skills; difficulty understanding the pragmatics of language; learned helplessness. A meeting with Verity Suchly, Michael's mother and myself has been arranged for 15 December, 2011 to discuss strategies to be used to support Michael's learning and inclusion at Sunnyside.

Any other comments

Assessment completed by:

A. Psychologist, Independent Assessment Services