



ACE Test Full Report

Full Name: John Smith

Date of Birth: 01 June 2000

Gender: male

Test Date: 02 Sep 2009

Developed and normed by Prof. Rod Nicolson of The University of Sheffield
in conjunction with Dynevor Ltd

Disclaimer

This test has been designed by Prof. Rod Nicolson of The University of Sheffield in order to assess an individual's profile of strengths on a wide range of cognitive and motor skills. An expert system takes this full profile of abilities and attempts to identify the corresponding learning styles and also to diagnose any underlying learning factors. This report provides a summary of the scores, diagnoses and recommendations. This first edition (2006) has been normed nationally for children from 7 years and for adults.

It should be stressed that the scores here present a 'snapshot' of the performance at a particular time on a particular day. Performance can vary as a function of time of day, illness, confidence and other factors. Whilst great care has been taken to ensure that this test provides a robust and valid indicator of learning difficulties, it must be stressed that it should be used only as a first step in accurate diagnosis of difficulties and it is not a substitute for a diagnosis by a trained medical professional. No warranty as to the accuracy of the scores, diagnoses or suggestions for support is implied or provided.

Introduction

About the test

There is a growing realization that we are all different in the way that our brains develop. This difference allows for the huge diversity of skills and abilities within the human race. Unfortunately for significant numbers of people the development of such abilities is hampered by underlying neurodevelopmental delays which may even go unnoticed. Historically practitioners have tried to define labels for such difficulties depending on how the symptoms present themselves in the individual.

However it is becoming increasingly apparent that there are such significant overlaps in symptoms between these 'developmental' conditions that it is the exception rather than the rule to have symptoms restricted to only one condition. The conditions we speak of are commonly referred to as dyslexia, dyspraxia (DCD), ADHD, and Autistic Spectrum Disorder.

What has been missing in the area of assessment has been an easy to use assessment system which covers a wide variety of performance areas and one that is not restricted by the current narrow definitions. The test looks deeper below the surface of skill performance to the very root of a person's functioning at both the cognitive and brain performance level.

After years of careful development and testing Professor Rod Nicolson of The University of Sheffield has developed the first internet based, wide-ranging test of performance. The test can be used by people over 7 years of age. It examines basic skill profiles, as well as the more in depth cognitive and brain level performances.

Additionally and uniquely it provides the most comprehensive report on an individual's skill profiles, preferred learning styles and advice on the most suitable approach to improving areas of underperformance.

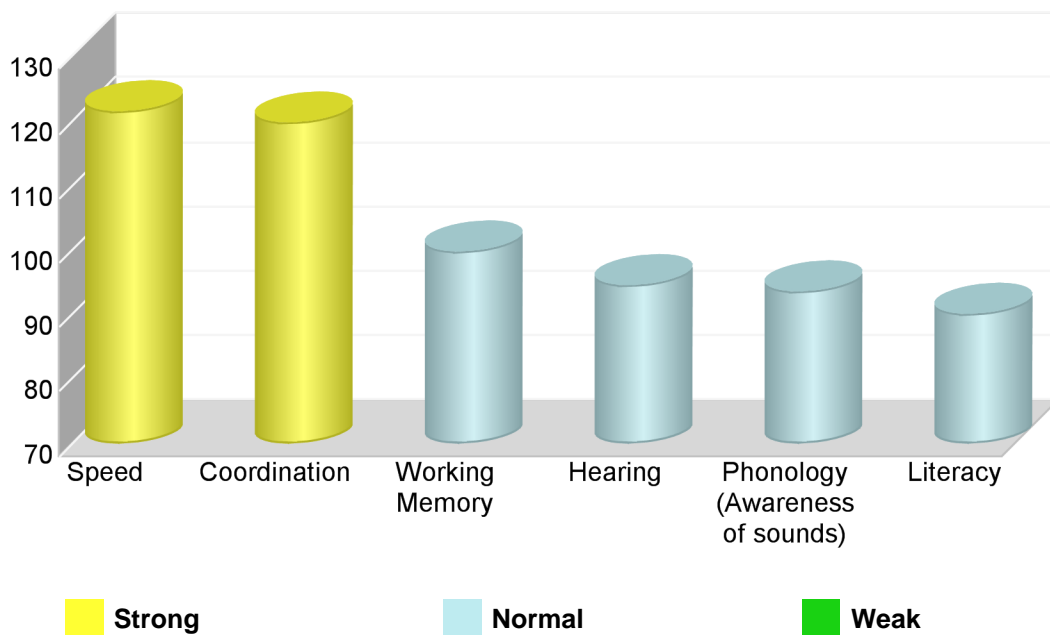
All this from an easy and fun to do test. These tests have been developed through interaction with thousands of children and adults in order to improve their ease of use as well as define the range of performances for all age groups.

We hope you enjoy using ACE and we look forward to your feedback. You can contact us via e-mail: support@acetest.org

Skill Factors

Introduction

The prime focus of ACE is general literacy (for example reading, spelling, sounds in words), and so we have chosen literacy as the main factor in these analyses. Literacy depends upon the two 'special' factors of phonology and hearing together with general learning ability. Learning ability depends upon three major factors: working memory, which indicates how much information we can handle at one time; speed, which indicates how fast we can handle information; and coordination, which indicates how well we can combine information from different sources. It is possible to have strengths and/or weaknesses in each of these factors, and this leads to a particular 'learning profile' that may well have important implications for improving learning. These six factors therefore provide a profile that is unique to each person.



There is a number score for each of the skill performances. These are called standard scores and are adjusted for age. They are shown next to the name of each test in the report. The normal performance range lies between 90 and 110 and these are shown as a blue column in the graph. Scores above the normal range (above 110) are shown as gold columns. Scores below the normal range (below 90) are shown as green columns. There will be recommendations given in areas which are shown to be below the normal range.

Speed: 122

Strong

The speed factor combines the performance on tests of 'reaction speed' and fluency. Strong performance indicates well functioning mental processes.

Coordination: 120

Strong

The Coordination factor combines the scores on the 'Tapping', 'On the ball' and 'Boing' tests. Strong performance is likely to indicate good sporting ability which may or may not correlate with good literacy.

Skill Factors

Working Memory: 100

Normal

The working memory factor combines the scores on the 'remembering numbers' and 'patterns' test. These tests check for verbal working memory and visual working memory. Performance within the normal range suggests that working memory should be adequate for most situations.

Hearing: 95

Normal

The Hearing Factor combines the scores on the 'High Low' and 'Parts of Words' tests. Performance within the normal range indicates satisfactory hearing.

Phonology (Awareness of sounds): 94

Normal

The Phonological factor combines the scores on the 'Odd One Out' and 'Parts of Words' tests. This score for the phonology factor is in the normal range. Performance within the normal range indicates that normal reading and hearing skills should develop appropriately.

Literacy: 90

Normal

The Literacy factor combines the scores on reading and spelling. Performance within the normal range suggests that standard literacy tasks should be pitched at about the right level.

Learning Styles

Introduction

The major abilities that may well affect learning style are verbal (learning by being told), visual spatial (learning by watching) and kinaesthetic (learning by doing) styles respectively. We report here on the user's learning style based on the performance on all the tests. This will help to decide the most appropriate method(s) to learn for the most efficient outcomes. This information would be most useful for teachers, tutors or trainers to decide on the best way to provide information to learn.

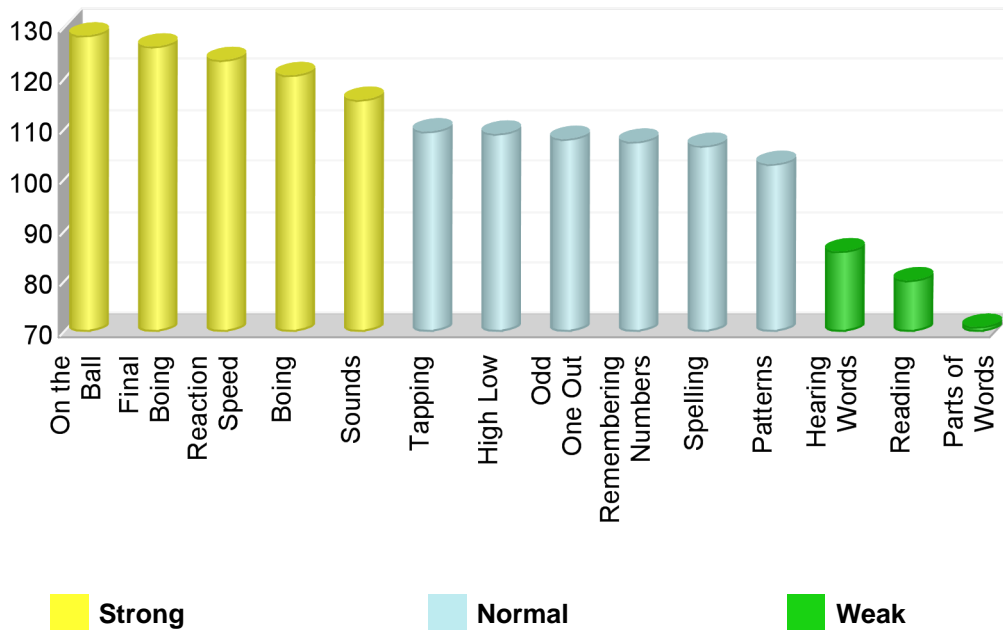
Mid Verbal, High Visual

The strength in spatial performance, taken together with the mid-range verbal performance indicate a retentive memory for most types of spatial / visual information, together with normal ability to understand and remember spoken communication. Memory difficulties are more likely to occur when communication is solely verbal, and so it is important to ensure that important information is communicated visually (e.g., written) as well as verbally. In terms of learning style, there will probably be a preference for spatial thinking. It is possible that %first name% will have potential skills in 'top down' thinking, seeing the whole of a scenario before deciding on the best action. It is therefore likely that an approach that emphasises the opportunities (such as 'spider diagrams' or 'mind maps') for spatial organisation will prove particularly beneficial for examination revision.

Individual Test Results

Introduction

This section provides analysis of each individual test result. Each test is identified as being average, strong or below average in order to reflect performance.



There is a number score for each of the test performances. These are called standard scores and are adjusted for age. They are shown next to the name of each test in the report. The normal performance range lies between 90 and 110 and these are shown as a blue column in the graph. Scores above the normal range (above 110) are shown as gold columns. Scores below the normal range (below 90) are shown as green columns. There will be recommendations given in areas which are shown to be below the normal range.

On the Ball: 128

Strong

The On the Ball test involves attempting to keep the mouse pointer in the centre of a target that moves around a fixed circuit at increasing speed. The score indicates how long the user stays on target. It indicates eye-hand coordination and 'smooth pursuit' tracking ability.

Strong performance is likely to indicate good sporting ability - or perhaps extensive practice at computer games - but may or may not correlate with good literacy.

Final Boing: 126

Strong

This is the number of times the user is able to use the mouse to click on a moving target in 30 seconds. It assesses eye-hand coordination. This final test gives a more accurate indication than the first one.

Strong performance normally indicates good eye-hand coordination and hence good performance of the motor cerebellar system, but may reflect extensive practice at this type of test.

Individual Test Results

Reaction Speed: 124

Strong

The Reaction Speed test assesses how fast the user can react to different shapes and recognise the difference.

Strong performances on this test i.e. without mistakes, indicates a well functioning sensori-motor system.

Boing: 121

Strong

This is the number of times the user is able to use the mouse to click on a moving target in 30 seconds. It assesses eye-hand coordination. In this first test it is used to familiarise the user with the mouse and the general procedures.

Strong performance normally indicates strong eye-hand coordination and hence strong performance of the motor cerebellar system, but may reflect extensive practice at this type of test.

Sounds: 116

Strong

The sounds test assesses the ability of the user to discriminate between high and low pitched sounds. The test assesses the ability to distinguish between sounds as well as the speed of making that decision. It can pick up auditory problems as well as measuring reaction speed.

Strong performance on this test (without mistakes) indicates a well functioning system. There is some evidence that fast reaction speed can lead to cumulative benefits over the years in that more information can be processed quicker.

Tapping: 110

Normal

The Tapping test requires the user to tap in time to a beat, and to keep tapping after the beat fades away. Different analyses allow both the accuracy and the variability of the tapping to be determined for a range of different intervals.

Normal tapping is associated with normal ability to detect and maintain rhythm, and suggests that the cerebellum timing is within the normal range.

High Low: 109

Normal

In the High Low test a pair of tones (one high and one low tone) is presented, close together, and the user has to decide whether the pair sequence was high-high, high-low, low-high or low-low.

This score indicates satisfactory ability to hear sharp transitions in speech.

Odd One Out: 108

Normal

This test measures the ability to discriminate the subtle differences between similar words using rhyme by indicating which of three words does not rhyme.

This score indicates normal abilities to detect rhyme in words.

Individual Test Results

Remembering Numbers: 108

Normal

The Remembering numbers test assesses the user's ability to repeat back a series of numbers from 1 to 12. There are two ways this is done. Firstly by just repeating the numbers in the same order; then a more difficult test where the numbers have to be rearranged in working memory so they can be repeated in ascending order (i.e. starting at the lowest number and ending at the highest). It is considered an indication of the user's 'verbal working memory' i.e. the ability to keep and manipulate things in mind while attending to further information.

This score indicates satisfactory ability to remember and organise verbal material.

Spelling: 107

Normal

The Spelling test is simply the number of graded words the user spells correctly in two minutes. It assesses the user's spelling fluency (speed) as well as accuracy.

This score indicates spelling skills are in the accepted normal range for the age group. It does not necessarily indicate that the user has full understanding of sound-to-writing principles.

Patterns: 103

Normal

The Patterns test is a test of visual spatial memory ability. The user is shown a sequence of lighted squares and has to retrace the sequence in the correct order.

This score indicates adequate function of the visual spatial working memory.

Hearing Words: 86

Weak ●

The 'hearing words' (phonological discrimination) test checks the ability to hear words properly. A pair of very similar sounding words and nonsense words is presented and the user has to decide if they are exactly the same or different.

Weak performance on this test indicates either general hearing problems or, more specifically, weak ability to hear the fine differences in sound in words. Many people with dyslexia or with generally poor literacy will perform poorly on this test.

Recommendation

The precision of hearing words (phonological discrimination) is weak. This is an important diagnostic indicator, in that it suggests that the user either has hearing problems or alternatively has problems discriminating sound but has normal levels of hearing. Both these are likely to lead to poor reading, and further hearing tests and phonological tests should be administered. It is likely that more phonics practice would be beneficial.

Reading: 80

Weak ●

The Reading test is a multiple choice test in which a word is spoken and the user has to click on the corresponding word (out of four). It provides a rough assessment of the user's reading accuracy and fluency.

Weak performance normally reflects either low literacy knowledge, general lack of reading ability or perhaps slower and more effortful reading performance than normal.

Recommendation

Difficulties with reading indicate that further reading support is needed, and that a fuller analysis of reading speed, accuracy and comprehension might be undertaken.

Individual Test Results

Parts of Words: 67

Weak ●

The parts of words test assesses the ability to identify and manipulate the actual sounds heard when words are spoken.

The ability to hold the sounds of words in the mind and manipulate them is a critical part of learning to read and spell by helping the child to perceive regularities and patterns in word sounds. It is important to be able to understand the patterns in word sounds. Weak performance indicates likely problems with learning to read fluently.

Recommendation

Phonological skills are weak. The phonics component of the Literacy Strategy is designed to improve phonological skills. It may also be valuable to check such issues as whether the child can break a word down into syllables, and a syllable down into phonemes. Games such as 'Pig Latin' are also good methods of building skill and fluency.