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Psychological assessment of adults with specific performance difficulties at work



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1. Discrepancy and skill

These guidelines were developed in order to promote good practice in the psychological assessment of those individuals whose behaviour in the workplace reflects inconsistencies between what is expected of them and their performance. That is, those who have dyslexia, dyspraxia, dyscalculia, ADD/ADHD and ASD. They are sometimes referred to as being neuro-diverse, but more commonly as having specific learning difficulties. In recognition of the fact that the concern here is with the workplace rather than educational settings, and that most will have learned differently but effectively, the term 'performance difficulties' is used.

There are many and varied definitions of the different syndromes, and they are best avoided. It is better to use criteria for diagnosis. Those in schemata such as DSM and ICD are often child focused and based on the much criticised discrepancy model, where attainments in domains such as reading are compared with IQ. The notion of discrepancy is still valuable, but the criteria we use should be broadened to take into account our current understanding of syndromes, particularly as life span and workplace issues. Skills such as the following should be included:

- Reading accuracy, speed and comprehension
- Writing – legibility and speed
- Spelling
- Proofreading
- Verbal presentation
- Organisation
- Coordination
- Attention
- Listening comprehension
- Planning and self-regulation

The discrepancy should not just be in relation to ability, but to education, culture, family background, and employment history. It should also focus on the gap between the skills an individual has and those they need.

The purpose of assessment is ultimately to explain why these discrepancies exist, so we need evidence of weaknesses in the cognitive processes shown to be associated with the above. To be effective an assessment should be rigorous and comprehensive in terms of its content.

The assessment should be tailored to the individual. Professional judgement is required, not simply following a sequence of tests as set out in these guidelines. Ask yourself if each test is necessary – do you have enough evidence to conclude your point? Is there insufficient evidence to suggest a test is appropriate? For example, a specific test for dyspraxia might not be required unless there is clear demonstration of difficulty in childhood development. Testing can be arduous for many people, who may not have been tested for many years since leaving education. The following points show where we need to be flexible from normal testing conditions with this client group.

2. Considerations in testing

Assessment should promote self-understanding and should be a positive rather than a negative experience.

Dyslexic people may have been humiliated in the past and should be allowed their dignity.

Assessments are only as good as the information they yield and should focus on the information required for diagnosis, and the provision of advice.

Tests used should have face validity for the client; that is, they should clearly relate to explanations for difficulties and advice on strategy development.

The results of an assessment should always lead to an explanation. 'You are not dyslexic' is insufficient, as it does not address the issue of why the individual sought advice in the first place.

Feedback should be provided during the course of the assessment, as this reduces anxiety. Many people worry that the assessment will show them to be lacking intelligence and need reassurance that this is not the case early on in the process.

Putting the client at ease should always be priority as they may fear another authoritative figure. A hot drink or water should always be offered at the beginning. Talking about their journey, the weather or another non-assessment subject is always a good icebreaker and should relax the client. Breaks should be offered regularly.

When low scores are achieved on individual tests, encouragement should be offered and the client should be reminded that everyone has strengths and weaknesses.

Building confidence by summarising the key strengths at the end of the feedback and asking for examples of where the client utilises these skills can be very effective.

Clients can become very anxious during feedback as they may be concerned they won't remember everything that is being outlined. The psychologist should assure them at the beginning of the feedback session that the information will be repeated in the report and that questions can always be answered post assessment. Using the normal distribution curve graphs or other visuals is very important when providing feedback.

If concerns are raised regarding disclosure to employers, the psychologist should outline arguments for and against disclosure and also ask the client to consider how this might be articulated in a practical way. Practising a standard sentence can improve confidence a great deal.

An assessment should attempt to provide a reason for the difficulties people are experiencing. In particular, it should identify the problems in cognition that relate to skills. In dyslexia, for example, these include phonological processing, including awareness and memory, as well as a rapid naming ability.

Even then the cognitive abilities measured should relate to the individual concerned. Why, for example, would one administer tests of phonological awareness to those individuals whose reading accuracy skills are well developed, but have trouble with silent reading speed and comprehension?

The answer is, that in employment, it is rapid silent reading with good comprehension and recall that is a key skill. Problems with reading speed and comprehension indicate that phonological processing weaknesses may be present and should be investigated, particularly as rapid naming ability correlates with these skills.

In order to meet the above criteria differential diagnosis should involve the stages shown below:

- Information gathering – Interview, including history taking
- Psychological testing – this endeavours to explain the existence of behavioural characteristics

At each stage, caution should be exercised and an open, collaborative approach taken.

The following is statement made by a client who has been diagnosed as an adult:

'The diagnosis brought about some sort of identity crisis I guess I am now still unsure where my personality ends and the dyslexia begins... What I believe are characteristics of my personality and not actually my own, but coping mechanisms (e.g. Keeping lists, the need for tidiness) – it feels like I am not sure who I am anymore' (McLoughlin & Leather, 2013).

When assessments are done well, it can be a cathartic and constructive process, but when conducted poorly and without rapport, it can be very negative. Consider the following two statements, both made by respondents to a survey conducted by the Division of Occupational Psychology's Working Group on Neurodiversity in Employment.

Statement 1: *'I was left wishing I had never gone through the process. It took me a long time to accept that I'm dyslexic and seek help and understanding because of the way the test was carried out and the way I was dealt with afterwards. It destroyed my confidence and affected my work massively. I am aware that I just got a bad assessor and there must be loads of great ones so I wouldn't want to put adults off being assessed but it left me feeling extremely vulnerable, knocked my confidence, made me doubt my abilities more than ever and reinforced all my fears about my lack of intelligence.'*

Statement 2: *'I was very nervous and got quite upset about some of the findings and my assessor managed this really well and was very supportive and helpful.'*

Maintaining rapport is the highest priority, and taking extra time over digesting the results and explaining things as you go along are the top tips for ensuring this happens.

3. Interviews and testing

The assessment process should begin with an interview and the information gathered is critical to identification. It might be sufficient to suggest that someone should not pursue the matter further, but it is more likely that it will indicate that further investigation is warranted. The use of pre-assessment questionnaires may precede any interview, however this should be carried out ahead of time to enable clients to consult family members on developmental milestones. In addition, any such questionnaire should be written and designed in a way that is accessible for the target audience.

An interview should cover: reason for assessment; medical, educational and employment history; language background; family history. Assessors should aim to allay any concerns of the client by discussing the assessment process.

The assessment process is one situated in a broader context and this should be kept in mind. Dealing with periods of transition can be especially challenging for people who have specific difficulties, which may affect not only their working life but also the assessment experience. As such, assessors should maintain an open-minded approach and appreciate that assessments are not a labelling exercise, but rather a process of explanation in which underlying cognitive abilities and inconsistencies amongst these are highlighted. This can be co-created with discussion with the client at the very start.

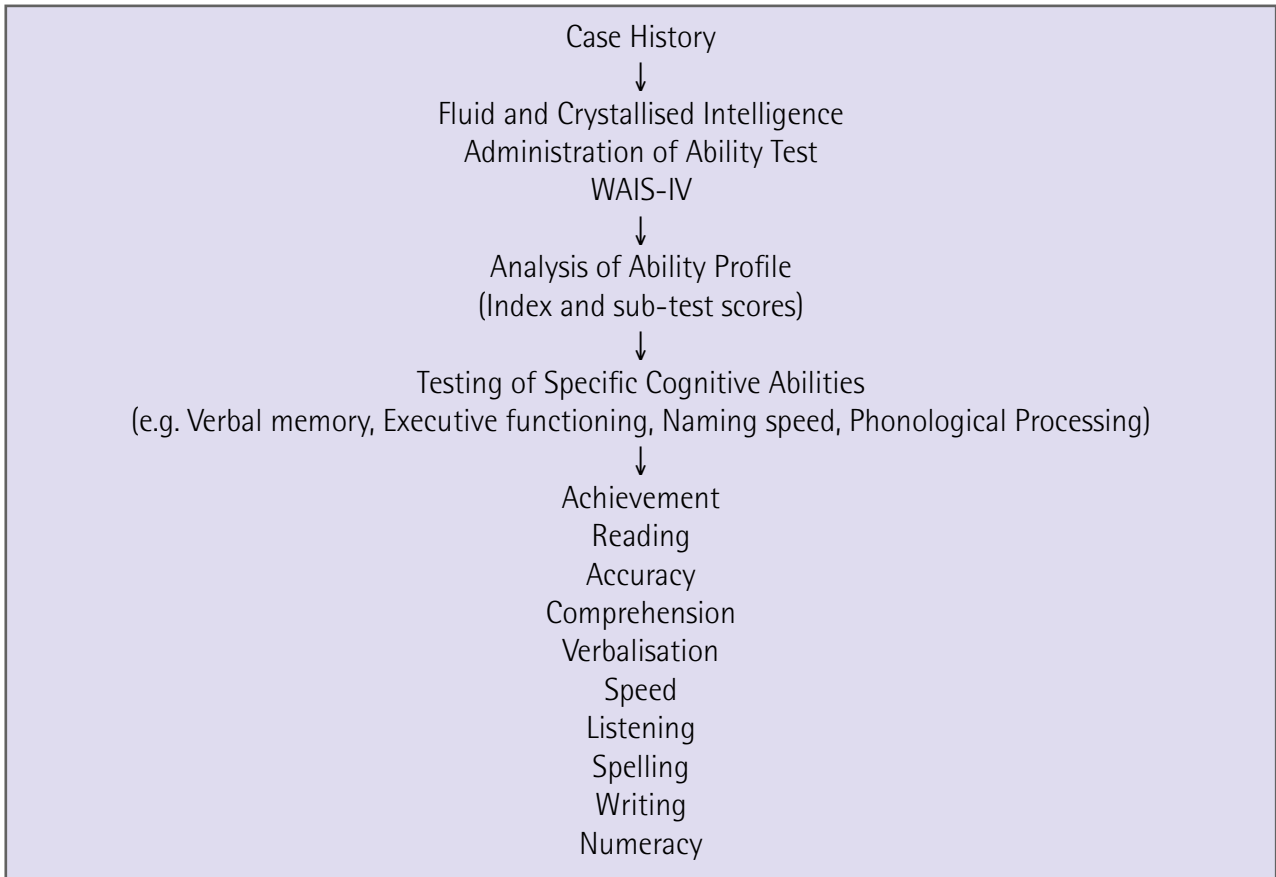
It is formal, psychological testing which can best answer the question 'why are tasks difficult?' It requires careful observation and clinical judgement. A person who does not have abilities that stand out from their weaknesses may have a global learning disability, and not dyslexia or dyspraxia, but this will be indicated in their life experiences so far and taking time to understand these will enable the assessor to frame and 'pitch' the assessment in such a way as to not cause alarm.

Sometimes people with neurodiversity misunderstand instructions and can fail at tasks within the assessment due to incorrect style of response, rather than not having the correct answer. Assessors who have discussed, de-briefed and understood the client before commencing testing are more likely to avoid this problem and to recognise it when it is occurring. Information gleaned during interview, such as five good GCSE scores, should predict an average level of competence in a few areas of the assessment. Should these scores not materialise, the assessor must realise that the testing situation is causing difficulties and seek to understand what is happening for the client.

As well as provide an answer to the question 'why are tasks difficult', testing should identify abilities and strengths. Talk to the client about real life every day strengths and struggles helps to contextualise the results, and builds a collaborative, consensus approach. For example, a client working as a social worker, who is struggling with reports, may be over focused on those reports and forget that he is an excellent communicator. Knowing these things in advance helps you to contextualise the tests, such as processing speed and verbal comprehension.

In the interview process, you are learning where the skills and difficulties are likely to be and the test results should confirm this. Your clients' perception and comments are vital evidence in the building a story that maps to a diagnosis.

4. Steps in neuro-diversity diagnosis



5. IQ testing as part of the diagnostic process

Although there has been much debate about the use of intelligence testing in the diagnosis of specific difficulties, the issue should be quite clear. The concern is to distinguish between:

- People whose overall intellectual functioning predisposes them towards finding the acquisition of literacy, numeracy, learning and work-related skills difficult. That is, people who have problems learning most things, usually referred to as having a general learning disability.
- People whose overall intellectual functioning is at an average or better than average level, but who have specific areas of cognitive weakness that undermine their acquisition of some skills.

It is the latter group who constitute the population of people who have specific rather than general difficulties.

In order to establish potential, and eliminate general learning problems, a comprehensive measure of intellectual ability or intelligence is administered. This should measure fluid and crystallised intelligence, as both are important in predicting what people should be able to achieve. The former relates to abilities that are not dependent on acquired knowledge such as non-verbal reasoning, attention, memory capacity and processing speed; it deteriorates with age. The latter is the problem solving abilities, vocabulary and information acquired through experience; it is likely to improve across the life course.

The Wechsler Adult Intelligence Scale – Fourth Edition (WAIS-IV) is the most widely used test. The WAIS-IV can be interpreted at multiple levels:

- Global composite – Full scale IQ
- Specific composite – Index scores
- Sub-test level
- Item level
- Task cognitive capacities

This means it can be used as a normative test, allowing comparison with others of the same age, and also to compare abilities shown by one individual.

WAIS-IV as a normative test

In the context of identifying specific learning difficulties, the WAIS (IV) is at its least useful as a measure of IQ. It will distinguish between the 'unable' and those who have specific difficulties, but because some of the subtests tap areas of cognitive weakness associated with dyslexia, the overall scores can be an underestimate. By definition, people with specific difficulties will find some of the sub-tests harder than others and a Full Scale IQ does not necessarily reflect their intellectual potential. In general, calculation of an overall IQ score when working with individuals who have a specific difficulty should not be included in a report for employers, as when there are significant differences between the Index scores, the Composite Full Scale IQ is less meaningful.

The specific composite – Index scores

As well as a Full Scale IQ score the WAIS (IV) allows for the calculation of Index Scores; verbal comprehension, perceptual reasoning, working memory and processing speed, calculated on the basis of scale scores for:

Verbal comprehension

Vocabulary
Similarities
Information
(Supplemental test – Comprehension)

Perceptual reasoning

Visual puzzles
Block design
Matrix reasoning
(Supplemental test – Figure weights)

Working memory

Arithmetic
Digit span
(Supplemental test – L/N Sequencing)

Processing speed

Digit symbol – Coding
Symbol search
(Supplemental test – Cancellation)

The Index scores provide useful diagnostic information, the discrepancies amongst them being regarded as a guide to evidence of a specific difficulty. They also provide measures of competencies and this enables an assessor to inform clients of what they can do, as well as explain why some things are difficult for them. Further, whilst the relevance of IQ might be questioned, identifying particular abilities, notably language skills such as vocabulary, verbal reasoning and comprehension, is important as they underlie the development of literacy skills. Without an adequate vocabulary, for example, skills such as reading comprehension will be impaired.

Knowing about competencies is also helpful in providing academic and career guidance. Individuals who have an average or better than average Perceptual Reasoning Index score are likely to be suited to occupations involving visual perceptual skills. Abilities such as verbal comprehension have been identified as good predictors of academic success and making the transition from school to employment.

The sub-test level

The WAIS (IV) measures a wide range of abilities; dyslexic people often show an uneven profile, reflecting contrasting strengths and weaknesses. It is important to consider the potential implications of such contrasts.

The Technical and Interpretive Manual for WAIS-IV lists range of specialist group studies. In this context, those most likely to be of interest are those described as Individuals with Learning Disorders, including reading disorders, mathematics disorders and Attention Deficit Hyperactivity Disorder, as well as Asperger's Syndrome. Classification of the disorders is based on the DSM-IV-TR criteria and, therefore, on a discrepancy model and the studies are small in term of their sample size and for limited age groups. Some examples are:

Dyslexia – individuals with reading disorders (dyslexia) scored less well on the Working Memory Index than on the other Indices. This is consistent with current research, however it is insufficient on its own for a dyslexia diagnosis, as the steps in diagnosis section shows.

Dyspraxia/DCD – the manuals for the Wechsler scale do not provide profiles for individuals who have dyspraxia or developmental coordination disorder. Nevertheless, a discrepancy between the Verbal and Perceptual Reasoning Index scores (with verbal ability much higher than perceptual

reasoning) is often taken as an indicator of a non-verbal learning difficulty such as dyspraxia. It is part of the folklore of learning difficulties, and often misunderstood. Someone who has high verbal ability and only average non-verbal ability is not necessarily dyspraxic. They could just be someone who will make a better lawyer than engineer. A more specific set of tests and background history taking would be required to separate out a clear dyspraxia diagnosis.

Dyscalculia – profiles of individuals with mathematics disorders have been shown to score less well on the Working Memory Index when Arithmetic has been included and the Perceptual Reasoning Index particularly when Figure Weights is included, however these alone are insufficient diagnostic criteria. Case history and additional testing is necessary.

Asperger's Syndrome*/ high functioning Autistic Spectrum Disorder (ASD) – profiles show lower scores on the processing speed sub-tests and, therefore, the Processing Speed Index. The Comprehension subtest can also cause difficulties for some people with Asperger's Syndrome, or high functioning ASD.

ADD/ADHD – the profiles associated with attention deficit disorder indicate that people score less well on the Working memory and Processing Speed Index scores, thereby overlapping with profiles for dyslexia.

Supplemental tests and test-taking strategies

The authors of WAIS-IV have made recommendations regarding the use of supplemental tests in the calculation of composite scores. They have suggested that this be done when the sub-test performance is invalidated by factors such as administration errors, recent exposure to test items and response sets. This is an important consideration when assessing individuals who have specific learning difficulties. One might, for example, use cancellation rather than coding when problems with fine motor skills are evident, as it does not require the formation of symbols. Further, it is not unusual for adults to have developed strategies that enable them to deal with working memory tasks, e.g. 'chunking', when remembering series of numbers and relying on their fingers to help with mental calculations. These should be regarded as invalidating factors, the intention being to measure ability rather than strategy use. In general, it becomes increasingly difficult to distinguish between ability and strategy as people mature, particularly when anxiety is an additional factor.

* We note that the term 'Asperger's Syndrome' has been dropped from the latest edition of the Diagnostic and Statistical Manual of Mental Disorders, DSM – 5. However, in the workplace there are more negative associations with the term 'Autism' than there are with Asperger's. Many clients prefer to identify with the term Asperger's than ASD. It is worth considering this, and asking for clients' preferences.

6. What to look for when IQ testing

1. General confidence and anxiety
2. Verbal tests – problems with ‘word finding’
3. WAIS IV – ‘dyslexia sensitive’ sub-tests
 - Information – problems with labels (e.g. names of people)
 - Arithmetic – use of fingers
 - sub-vocalisation
 - asking for pen and paper
 - Digit span, Digit Span Sequencing and Letter Number Sequencing
 - differences between forwards, reversed and re-ordering
 - use of fingers
 - sub-vocalisation
 - chunking
 - visualisation
 - Coding, Symbol Search and Cancellation
 - use of finger as a guide
 - sub-vocalisation

Sub-vocalisation, visualising, use of fingers and chunking are all potential strategies that can be developed to assist with specific difficulties. However, when they are used during testing they can mask a problem. It has been known for dyslexics, for example, to score relatively well in working memory due to visualisation, which means that their auditory working memory is not being assessed properly and the implications for workplace issues, such as difficulty concentrating in open plan offices, may be overlooked.

7. The limitations of IQ testing alone

Administration of a test such the WAIS (IV) is necessary and will provide insights into cognitive abilities and clues about areas of weaknesses. It is not, however, sufficient for diagnosis.

8. Phonological processing

The most widely used measure of phonological processing is the Comprehensive Test of Phonological Processing (CTOPP). It measures a range of abilities associated with literacy. It provides composite scores, but these are not to be recommended, as individual abilities correlate with specific skills. Further, some of the sub-tests are redundant when assessing those who have achieved good levels in literacy.

The CTOPP is only normed for the population up to twenty-four years and eleven months, but we know enough about the effects of ageing on some of the abilities it measures to allow for a qualitative judgment about the performance of an individual whose age is outside that of the sample population. In normal adults, for example, rapid naming slows on average by ten seconds between ages fifteen and ninety-five. In general, the slowing of cognitive speed over the life course is linear and reduces by one second per decade up to age fifty-five, and one second per every seven years beyond that (Wiig, Nielsen & Jacobson, 2007). The authors of the CTOPP advise that the composite score should always be calculated and significant differences between scores should be noted, especially as particular aspects of rapid naming ability correlate with different skills.

An alternative measure of processing and naming speed is the AQT, A Quick Test of cognitive speed, which covers the age range up to ninety-five years.

9. Memory ability

The separate measurement of memory abilities can provide both further explanation and suggest strengths on which an individual might capitalise. Psychologists are able to use tests such as the Wechsler Memory Scales which provide a very comprehensive measure of memory ability including:

- **Immediate memory** – auditory and visual.
- **General (delayed) memory** – auditory and visual.
- **Working memory** – auditory and visual.

Like the WAIS, it provides individual sub-tests scores as well as Index scores. Both sets of scores are useful diagnostically, as well as in programme planning. Low scores clarify the specific areas of weakness, and average or better than average scores provide clues as to the strategies that might help circumvent these.

Where people have hearing difficulties or are working in English as a Second Language (ESOL) tests such as Spatial Span from the WMS III, and Spatial Addition and Symbol Span from WAIS (IV) can be good tests to use as they don't rely on auditory stimulus.

Those seeking an alternative to the Wechsler Scales will also find the Test of Memory and Learning (TOMAL 2) and the Wide-Range Assessment of Memory and Learning (WRAML2) very comprehensive.

It is worth noting at this point that other forms of memory, such as episodic memory, are not necessarily affected by the conditions we mention. Clients benefit from knowing that working memory is a specific form of memory and not the sum total. A discussion during assessment and explanation in the report of exactly what type of memory has been tested and how it is affecting them is encouraged.

10. Executive functioning

The measurement of executive functions is complex. There are many tests but the ones that relate most to current theories of dyslexia are the Hayling and Brixton Tests. These are published as a package but are two separate tests. The Hayling Test is verbal and involves sentence completion. It has two sections; the first is simple sentence completion, the second involves suppression and yields three measures relating to executive functions; response initiation, response suppression and the efficiency of the latter reflected in speed of response. The Brixton Test is a rule attainment test akin to the Wisconsin Card Sort Test but also involves spatial anticipation. Among other processing abilities, it is thought to tap spatial working memory.

Many people with dyslexia find the suppression section of the Hayling Test difficult, there being a heavy verbal cognitive load, but they have less difficulty with the Brixton Test, visual spatial ability being intact. This is likely to be reversed when people have dyspraxia/DCD.

11. Achievements in literacy and numeracy

Reading

There are many reasons for assessing an adult's reading skills. In occupational psychology, the most important is establishing whether the individual has sufficient competence in all aspects of reading as to enable them to deal with the tasks they face on a daily basis, in a particular occupation, or at least the programme of training leading to that occupation.

Reading levels

Where standardised tests have been used to assess reading levels scores have often been expressed as reading ages. This practice must be abandoned when working with adults. It is not helpful for an adult to know they have a reading age of 10 years, for example, and is demoralising as they relate it to their chronological age. Self-esteem can be damaged and there are people who have lost their jobs because employers do not know what it means in real terms. Even standard scores and percentiles are of limited value when working with adults. They allow comparisons and can be useful in the allocation of resources, as well as determining accommodations in educational and assessment settings, but can be meaningless for most adults.

We only need the reading skills which enable us to deal with the demands placed upon us by our educational, work and social programme. The most enduring and important situation in which adults need reading skills is their work environment. Criteria for establishing levels of attainment amongst adults are, therefore, best derived from work tasks.

There are insufficient criterion referenced tests but adult literacy and numeracy skills can be rated as being at one of four levels. These are professional, technical, vocational, and functional. For those who are more familiar with reading in an educational setting these levels are set out below with their equivalent educational levels.

Levels of reading

Level	Education level	Age
Professional	Grades 11-12 and above	Over 16 years
Technical	Secondary/Junior High school	13-16 years
Vocational	Primary/elementary School	9-12 years
Functional	Infants School	Up to 9 years

Professional reading skills are those required by the upper levels of secondary school, as well as university studies and a professional occupation.

Technical level skills would enable someone to complete lower secondary courses and a programme of further education. They would be able to work in occupations such as sales, secretarial work and computing.

The vocational level relates to the requirements of jobs that require a moderate amount of reading.

The Functional level suggests that an individual will find jobs that require even a little reading difficult. Those at the upper end of the functional level may have sufficient reading survival skills as to enable them to deal with jobs that place minimal demands upon reading skills, but those at the lower end may not be able to deal with any type of job which requires some reading.

It is inappropriate to quote reading ages in an adult assessment. The report should contain information about their ability in relation to their work, not their ability in relation to a child's age. This is very disempowering and upsetting for many clients.

The components of a reading assessment

Reading is a very complex skill, however, for the purpose of assessment it can be regarded as having two major components:

1. **Decoding:** That is, the ability to pronounce the word, either overtly or covertly.
2. **Comprehension:** That is, the ability to understand the word and the text.

The assessment of adult reading skills should therefore include measures of decoding, as well as reading comprehension and reading rate.

Decoding

Decoding skill has been measured typically by the use of single word reading and prose reading tests. There have been many examples of single word reading tests and they are much the same. They consist of lists of words graded in order of difficulty. Single word reading tests that provide norms include:

- Test of Word Reading Efficiency (TOWRE)
- Spadafore Diagnostic Reading Test (SDRT)
- Wechsler Individual Achievement Test-Second Edition (WIAT – II)
- Wide Range Achievement Test 4 (WRAT 4)
- Woodcock Reading Mastery Tests (WRMT-R)
- Woodcock-Johnson III Tests of Achievement (WJ III)
- Academic Achievement Battery (AAB)

Although they do have a place in the assessment of decoding skill, single word reading tests are of a limited value. When assessing an adult's reading skills, one is really attempting to determine how well they can function in everyday life, as well as in academic and work settings. Most people have to deal with prose rather than individual words. Prose reading tests usually consist of a set of passages graded in order of difficulty, which the examinee has to read aloud. Tests in use include:

- The Adult Reading Test (ART)
- Gray Oral Reading Test – Fourth Edition (GORT-4)
- Spadafore Diagnostic Reading Test (SDRT)
- Academic Achievement Battery (AAB)

Comprehension

Measures of reading comprehension take a number of forms. In general, they involve answering questions about material that has been read aloud or silently. Measures of silent reading comprehension are much more important. It is silent reading comprehension that is fundamental to being able to pursue formal education and most occupations. If one were to choose a particular aspect of reading which would predict success in an occupation, it would be silent reading comprehension.

Tests of silent reading comprehension usually involve asking individuals to read a passage to themselves, within a prescribed time, then answer questions. Reading comprehension tests include:

- The Adult Reading Test (ART)
- Gray Silent Reading Test (GSRT)
- Nelson – Denny Reading Test (NDRT)
- Scholastic Abilities Test for Adults (SATA)
- Spadafore Diagnostic Reading Test (SDRT)
- Wechsler Individual Achievement Test – Second Edition (WIAT-II)
- Wide Range Achievement Test 4 (WRAT-4)
- Woodcock Reading Mastery Tests (WRMT-R)
- Advanced Reading Comprehension Test (ARC)
- Academic Achievement Battery (AAB)

It is important to note that comprehension tests vary in their format. Those selected should approximate to the tasks individuals have to deal with. Individuals needing to complete multiple choice tests, for example, should be assessed using comprehension tests designed in that format.

Listening comprehension

Listening comprehension is an important skill. It is the ability to analyse and understand what is presented aurally. Much new knowledge is acquired through listening. Listening comprehension underlies performance in learning situations such as seminars, tutorials, work training programmes, as well as skills such as note taking. It can be a critical skill, e.g. when receiving instructions.

Adults with poor listening comprehension skills can have difficulty functioning in learning and work settings. At the professional level, reading can be more efficient than listening, but below that, people are heavily reliant on listening comprehension, even though it involves working memory. Measures of listening comprehension consist mainly of the examiner reading passages to the person being tested and then asking them questions about what they have heard (e.g. the SDRT, WIAT or AAB).

Speed of reading

There are adults who can decode words quite well, but do so very slowly. Being able to decode words at the professional level does suggest that an adult might be able to tackle courses of advanced study or undertake a professional occupation, but if the process is very slow, there will be limitations. Being able to read quickly is also important to comprehension. Unless a person can read at a good rate they cannot keep the content in memory long enough to comprehend it.

Reading aloud is not a particularly important skill for most adults. The appropriate measure of reading speed or rate is based on silent reading, particularly when reading for meaning. Reading rates tend to increase in predictable increments across the age span. Average expected reading rates for the four levels of reading are set out below (Manzo & Manzo, 1993).

Expected rate of silent reading

Reading level	WPM
Functional	100
Vocational	150-175
Technical	200-250
Professional	+250

A number of tests listed above include measures of speed, but those that involve silent reading speed are the most appropriate.

The assessment of reading skills and information technology

Research into online reading and its assessment is in its infancy. It suffices here to say that it should never be assumed that the measurement of reading skills for printed matter is necessarily tapping those required for accessing information online.

Writing

Writing is a very complex process. Three different tasks are suggested:

- Copying
- Dictation
- Spontaneous writing

Each of the above 'calls upon' distinctive cognitive and linguistic processes, and assessment should separate out higher and lower level abilities. The task set should also be appropriate for the individual. Copying is, for example, the most appropriate for people with very limited literacy skills. It demonstrates basic writing skills such as letter formation and fluency of handwriting.

There appear to be few, if any, standardised tests for dictation, but to consider spontaneous writing skills a sample of the client's writing should also be examined. A simple topic can be suggested or they can choose one of their own. Many people find this difficult and it is important to suggest something that they do not have to think about in too much detail. Something such as their journey to the assessment centre or a description of hobbies minimises thinking time. The quality of the written work in terms of legibility, structure, syntax and punctuation should be evaluated. Again, one is interested in the contrast between this and verbal ability. Characteristic errors include:

- omitting words, including prepositions and pronouns they intended to include
- difficulty with spelling.

There are structured tests of writing skills that require individuals to write about a specific topic. Others require skills such as summarising or providing a précis, but both of these require higher level processing and specific skills a dyslexic person might not have developed.

Estimates of the average writing speed for particular groups of adults vary, but it is thought the writing rate for an average adult not in education is 20 words per minute, but 25 words per minute for an adult in education (Hedderly, 1996). A measure of writing speed can be established by calculating the number of words produced per minute. It can be difficult to separate out writing and thinking speed but one can make a judgement about the individual's verbal fluency. For many adults, however, writing speed is not particularly important, as they will need to type all written work. The speed at which they will need to be able to type is entirely contingent upon the context in which they work.

Structured tests for the assessment of writing and skills include:

- Detailed Assessment of Speed of Handwriting (DASH).
- Scholastic Abilities Test for Adults (SATA) – Writing composition and Writing mechanics.
- Woodcock-Johnson III – writing fluency.

Spelling

Administering a single word-spelling test can always be helpful. Test with adult norms in current use include:

- Wechsler Individual Achievement Test –Second Edition (WIAT-II)
- Wide Range Achievement Test – 4th Edition (WRAT-4)
- Academic Achievement Battery (AAB)
- Helen Arkell Spelling Test (HAST)

Knowing a spelling age, grade level or standard score can be helpful to a teacher, but these are relatively meaningless to the client and can in fact be depressing. What is often more important is to go through the words on the spelling test with them and point out how close they were to getting a particular word correct. Someone who has benefited from a good education will often make only minor errors but this would still result in a very low score on a spelling test. Further, writing and spelling places a very heavy load on working memory. There are individuals whose score on a standardised spelling test will not be significantly outside average limits. However, their skills can deteriorate markedly when they are writing prose, particularly under pressure.

Often these errors can be construed as carelessness, so it is important to look at their nature. For example:

- confusion of letter order,
- omission of letters and
- phonic spelling, or words spelled as they sound are characteristic of dyslexia.

Problems with homophones often persist. The nature of spelling errors has important implication for appropriate solutions, as well as adjustments. The questions should be, 'Can they use a spell checker effectively?'

Further, it is not just the end result that is important but also the automaticity of spelling. Some individuals produce the correct spelling, but take a long time to do so and this will inevitably have an impact on their work rate. Observation is the best way of determining this.

Proof reading

Being able to check work accurately is an important skill in the workplace. Tests of proof reading can be helpful but there are few. The one from the original York Adult Assessment Battery is quite good. Such tests can also provide insights into the understanding of grammar and syntax.

Numeracy

The testing of arithmetic skills can be helpful, particularly when a client or an employer has raised difficulties with these.

Arithmetic tests are usually just measures of attainment and a low overall score might only reflect gaps in knowledge of mathematical operations due to poor teaching. Appropriate tests include:

- Wechsler Individual Achievement Test – Second Edition (WIAT-II)
- Wide Range Achievement Test (WRAT 4)
- Academic Achievement Battery (AAB)
- Mathematics Competency Test
- Scholastic Abilities Test for Adults (SATA) – Maths application and Maths calculation

All of the above can be of diagnostic value when responses are analysed carefully. That is, an examination of the kinds of error made can determine whether they reflect underlying processing problems or poor learning. This is complicated, because dyslexics often report that they were taught number skills using phonological methods, e.g. being taught multiplication tables using chanting. It is worth asking about this when exploring educational history.

12. Test editions

Test manufacturers update their tests with new editions on a fairly regular basis. The edition recommendations here were made in December 2013. Check for new editions regularly. The SASC website is a good place to check on which are in circulation, as well as which supplemental tests are recommended.

13. Re-assessment

There will be times when dyslexic people need a re-assessment. This can be for several purposes including:

1. determining need with regard to adjustments and accommodations, or
2. determining need with regard to provision.

The purpose of the re-assessment should establish its content. Entire diagnostic assessments should be unnecessary if dyslexia is recognised as a syndrome which is intrinsic to the individual and persists across the lifespan. However, experience suggests that scores in assessments are not always stable from one assessment to another. This variation appears to be accounted for by two main factors, poor test administration which can elevate or depress some or all test scores, and

changes in an individual's circumstances e.g. life events and accompanying emotional stress, health problems and medication, any of which may depress performance in an assessment. These latter factors are often not recorded in assessment reports. The effect of inaccurate and/or fluctuating results in different assessments can be misleading diagnostically, resulting in dyslexia and other difficulties being under reported, and also demoralising for individuals. It is sometimes difficult to assess the reliability of previous assessments, and therefore to judge how comprehensive a reassessment needs to be.

When needs regarding accommodations and provision are being determined it is important to establish what a dyslexic person is able to do, as well as what they can't do. Persisting reading difficulties can be compensated for by the use of CD-Rom based material and Text to Speech software, but their use requires adequate listening comprehension skills. Slow and untidy handwriting can be accommodated by allowing someone to use a word processor. It is, however, necessary to establish that the latter has become the main way in which someone communicates in writing and that his or her typing skills are automatic. Voice recognition software can be very effective, but requires verbal fluency and experience in its use. Failing to ensure that they have the requisite skills can lead to a dyslexic person being even more disadvantaged.

Differences in scores can sometimes be observed when an individual is reassessed. This variation can be due to a number of factors. For example, differences between scores when an individual is initially assessed as a child and then subsequently retested as an adult could be due to:

Environmental factors: A child who is well taught, who has access to audio books or who has books read to him or her may well score highly on Vocabulary as a child due to exposure to a wide range of language. Once they become an adult, if reading skills have not developed this opportunity to hear, read and learn new words may become limited. As an adult, the level of vocabulary knowledge may reduce substantially compared to others in their age group who have had the opportunity to broaden their vocabulary.

Educational opportunities: Many adults will have been able to develop compensatory strategies to overcome difficulties that they faced at school. This means that it is important to consider subtle discrepancies between scores when assessing clients for the work place. For example, intensive spelling lessons can improve ability. However, difficulties are likely to manifest when the individual is asked to process a large volume of words or to work quickly.

Poor testing practice: it is important that an individual be given the opportunity to perform to the best of their ability.

Consideration must be given to the fact that often an adult is nervous when they come forward for assessment and they may have mixed emotions about the whole process. The adult client may be bemused by the range of unusual tasks that they are asked to complete. When confronted with the WAIS general knowledge or the spatial reasoning tasks they may fear that they will return to a humiliation last experienced at school.

This is one of the reasons that an assessment should always start with an interview, which gives the opportunity to chat and relax the client as well as finding out potentially important background information – facts as well as more qualitative information about reactions to the assessment situation. Adults are likely to want to talk about their experiences and to question the reason for completing some of the tests.

Although the tests are very familiar to the assessor it should be recognised that in many cases the client is being asked to do unfamiliar tasks. Instructions should be given clearly and the testing should be paced at an appropriate level rather than rushed through. With some clients, it may be necessary to offer a break at an appropriate point in the process.

Anxiety or low self-esteem: Dyslexics can feel overwhelmed by the fact that they are not coping as well as their colleagues with tasks in the work place. If they have encountered an unsympathetic attitude or behaviour recently or in the past, this can contribute to a feeling of low esteem. In many cases clients referred from the workplace fear that their job is at risk, or that a diagnosis will jeopardise their chance of promotion. These anxieties can be augmented by stress at home, or within the family, and all can impact on performance in the assessment.

Medical Conditions: Conditions such as depression or in some cases physical illnesses like Thyroiditis or Diabetes, or medication taken for a chronic condition can have an impact on the client's performance. Illegal drugs and self medication also affect performance. Whilst these factors may be confidential and as such not mentioned in the report, when they are evident consideration needs to be given to any possible impact on scores.

14. Diagnosis and English as an additional language

An increasing number of adults who do not have English as their first language present for assessment, but any test given in English is first and foremost a test of English. Even non-verbal tests have a linguistic aspect and can be culturally biased. Those who are apparently competent in terms of their spoken English might need more time to think about the words they use. Cultural factors extend beyond the use of language as there are individuals who will have come from a background where testing is only associated with passing and failing, and where learning difficulties are associated with mental health problems.

There are two levels of language development:

- Basic Interpersonal Communication Skills (BICS) - the initial stages.
- Cognitive Academic Language Proficiency (CALP) - that needed for study and work.

Sometimes the former can be deceptive and individuals can present as having better spoken English skills than is the case. During the course of an interview questions addressing the following can provide an indication of language competence:

- Competence in their first language (verbal and written)
- Age of introduction to English
- Extent/duration of English tuition
- Education level in the first language
- Number of languages spoken and or written
- The language spoken with friends/siblings/parents?
- Language spoken at school
- Level of reading and writing in first language
- Nature of script in first language

The Wechsler Scales are available in many languages and ideally, people should always be tested in their first language. This does not, however, mean that it cannot be used to assess those who are working in an English speaking environment but, therefore, in a second language. Digit span, Coding and Symbol search can be regarded as relatively 'culture free'. Provided the language is understood, the Arithmetic test is also culture free. Information is culturally biased but there are a number of items that can be considered as universals. The main difficulty is likely to be with the vocabulary sub-test.

The additional tests included in an assessment such as phonological memory and rapid naming will also be relevant as the underlying cognitive processes associated with literacy occur across languages. After all, if individuals are attempting to learn to speak, read and write English their competence on such measures in the language will be fundamental. See the note on assessing memory using the Spatial Scale from the WMS III for people with ESOL needs.

15. Comprehensive, holistic assessment

The attempt to explain why someone is finding something difficult should always begin with a cognitive assessment. When considering the various syndromes the process can be enhanced in a number of ways. These include the kinds of questions incorporated in an interview, examining cognitive profiles for specific areas of weakness and the use of checklists and questionnaires specifically designed for a particular syndrome. Psychologists who are not diagnosing ADHD still need to be aware of how it might impact on test scores, so that they can exclude it from a dyslexia diagnosis. The following section explores the other conditions that Psychologists need to be aware of, including potential need to refer on to other professionals. (This relates to the *BPS Code of Ethics and Conduct* (2009) VI, 2: Competence).

16. Specific conditions other than dyslexia

Dyspraxia/DCD

In an interview, it is essential to take a history, particularly anything that relates to activities involving coordination. This is not always easy, however, as the older individuals become the less likely it is that they will remember much about their childhood with regard to the achievement of milestones and coordination. After the emerging adult years, clients do not always have access to their parents so that they can gain such information. Nevertheless, a particularly slow to walk child may recall family stories about how long it took and what they had to do to accommodate the need.

It is important to use case history to determine if a problem has always existed (developmental) or whether it has recently started (acquired). An acquired problem should be referred to a medical professional as it could be a symptom of a variety of conditions, such as MS or Huntington's Chorea.

When dyspraxia has been raised in an initial interview a checklist such as The Adult Developmental Coordination Disorder/Dyspraxia Checklist for Further and Higher Education (Kirby & Rosenblum, 2008) can be used as a screening instrument. It can also be helpful later in the process as a way of clarifying the picture, when dyspraxia has been hypothesised on the basis of the results of a cognitive assessment and an interview.

There are various supplementary tests that can be used to explore fine motor control – such as the DASH 17+ copying tasks, alphabet writing and graphic speed test. The ceiling age for the norm groups is 25 years but when used with older clients can give a useful indicator of potential difficulties.

Visual motor co-ordination can be explored using tests such as the Beery-Buktenica Developmental Test of Visual-Motor Integration, and there are some simple gross motor movement exercises that can be used to explore gross motor co-ordination.

When gross motor co-ordination continues to cause a problem, the client should be referred for a clinical diagnosis and remediation generally through a suitably qualified occupational therapist.

As well as difficulty with movement, dyspraxia often causes neurocognitive issues in organisation skills, time-keeping, proximity of speech and poor social skills. Evidence of these can be elicited through a thorough case history and careful observation during the assessment. Cut-off points are guidance; for a holistic picture of the person, a variety of test results need to be considered.

Dyscalculia

'Dyscalculia is a condition that affects the ability to acquire arithmetical skills. Dyscalculic learners may have difficulty understanding simple number concepts, lack an intuitive grasp of numbers, and have problems learning number facts and procedures. Even if they produce a correct answer or use a correct method, they may do so mechanically and without confidence.' *The National Numeracy Strategy* (DfES, 2001.)

Dyscalculia is a difficulty with basic numerosity. It is distinct from a specific weakness in maths. However, unlike dyslexia, very little is known about its prevalence, causes or treatment. Current thinking suggests that it is a congenital condition, caused by the abnormal functioning of a specific area of the brain. People with dyscalculia experience great difficulty with the most basic aspects of numbers and arithmetic.

The following criteria have been suggested as markers for specific maths weakness:

1. There is a past history of maths difficulty
2. There is evidence that maths difficulties are impacting negatively on academic performance, daily living and/or work performance
3. The test score for a standardised maths test (e.g. WIAT or WRAT) is significantly lower than other tests
4. The low score is not due to forgetfulness, speed of working or concentration difficulties.

A non-significantly different score between PR on the WAIS and a Maths Computation score could indicate Specific Maths Weakness. If the Maths Computation score were higher, dyspraxia might be a better diagnosis. Research on suitable assessments for Dyscalculia is ongoing (notably, the work of Professor Butterworth and Dr Grant).

Best estimates indicate that somewhere between three per cent and six per cent of the population are affected. These statistics refer to children who are 'purely' dyscalculic – i.e. they only have difficulties with maths but have good or even excellent performance in other areas of learning. The following key criterion assists us in separating dyscalculia from specific maths weakness.

5. There is a lack of understanding of 'greater than and less than' or other numerosity issues.

The following need to be excluded as reasons for the maths difficulties: working memory and processing speed weaknesses; dyspraxia; maths anxiety; poor schooling and age related forgetting (for example not remembering how to compute long division).

When dyscalculia has been raised as an issue, a screening test such as DyscalculiUM (www.dyscalculia-zone.com) can be included as a precursor to formal assessment. This is an on-line screening test designed for those over sixteen years of age, examining the understanding of number concepts and their application to everyday situations. The figure weights subtests of the WAIS, and the WIAT/WRAT rapid digit and arithmetic tasks can also be useful tools in separating out a specific dyscalculic effect from other conditions.

Although there is limited support available, clients should be referred for additional specialist maths tuition or to one of the emerging support groups such as The Dyscalculia Centre: www.dyscalculia.me.uk or The Dyscalculia and Dyslexia Interest Group: <http://ddig.lboro.ac.uk>.

ADD/ADHD

Differentiating between those who have intrinsic difficulties and those whose problems with attention are task specific can be facilitated by the administration of checklists such as the Adult ADHD Self-Report Scale (ASRS-v1.1), which consists of eighteen items, based on DSM-IV criteria. The Brown ADD Scales are widely used and cover abilities also associated with executive functions including:

- Organising, prioritising and activating to work
- Focusing, sustaining and shifting attention to tasks
- Regulating alertness, sustaining effort and processing speed
- Managing frustration and modulating emotions
- Utilising working memory and accessing recall
- Monitoring and self-regulation action

Alternatively, the Conners Adult ADHD Rating Scales (CAARS) and Diagnostic Interview for Adult ADHD (DIVA) scales provide useful guidance.

Whilst there are a number of books and websites that contain useful strategies for maintaining attention, if such difficulties remain pervasive, clients should be referred for a medical diagnosis. Such difficulties can be caused by medical conditions that are beyond the expertise of most Occupational Psychologists, and a formal diagnosis by a clinical profession will provide clarification. Guidance issued in 2014 by SASC/ADSHE has suggested that ADHD can be highlighted as part of a Specific Performance (Learning) Difficulty assessment, which would provide useful guidance for educators and employers. Read more here <http://adshe.org.uk/resources/adhd-resources-and-information/>

We recommend that the psychologist include a clear indication to refer for medical support in addition.

Asperger's/ASD

Asperger's refers to individuals on the autistic spectrum, who combine some autistic characteristics (e.g. impaired social functioning) with higher-level cognitive abilities.

We note that the term 'Asperger's Syndrome' has been dropped from the latest Diagnostic and Statistical Manual, the DSM - 5. However, in the workplace there are more negative associations

with the term 'Autism' than there are with Asperger's. Many clients prefer to identify with the term Asperger's than ASD. It is worth considering this and asking for clients' preferences.

There are specific scales designed to identify such disorders including:

- Gilliam Asperger's Disorder Scale. This scale assumes at least average cognitive and language development and is designed for the population range 3 to 22 years. It is a 32-item scale which includes four sub-scales: social interaction; restricted patterns of behaviour; cognitive patterns and pragmatic skills. There is also a parent interview schedule.
- The Autism Spectrum checklist (Baron-Cohen, 2003), a fifty-item scale, which produces an Autistic Spectrum Quotient (AQ), is based on systematising/empathy theory.

A formal diagnosis should, however, be provided by an appropriately qualified specialist such as a psychiatrist or clinical psychologist.

Visual stress

Also known as Irlen's Syndrome, Meares-Irlen's Syndrome or Scotopic Sensitivity syndrome, visual stress is frequently associated with dyslexia and dyspraxia. It is good practice to screen for visual stress early on in the case history, as it affects the testing process. If visual stress is present and you ask a client to read from a piece of white paper with black writing, you may in fact be assessing their visual stress not their reading speed or accuracy.

Those affected by visual stress experience some of the following symptoms when reading: frequently losing the place (poor tracking), a 'glare' from the page, the blurring or apparent movement of text, skipping words, eye strain or headaches. Checklists (Bartlett & Moody, 2010) can help clarify issues. Coloured overlays have been found to help, and it is useful to have a selection to explore whether this is the case, but unaddressed vision problems are often the underlying cause of visual stress, necessitating a referral to a specialist optometrist. There can be many reasons for visual stress and sometimes these are to do with quite subtle ocular motor or acuity difficulties that require investigation by a specialist. These are listed on the websites www.ceriumoptical.com and www.s4clp.org. A different, more holistic approach, is offered by The British Association of Behavioural Optometrists www.babo.co.uk. You can also contact The Institute of Optometry, 020 7234 9641.

Reducing the contrast between black and white will go some way towards minimising Visual Stress, as will adapting fonts and colour backgrounds on a computer. In addition to experimenting with overlays of different colours, fonts and colour backgrounds on a computer could be modified and trialled.

Mental health issues

Mental health issues can confound diagnosis and require further referral.

Depression and anxiety are known to cause cognitive difficulties that may affect a cognitive ability scores, particularly processing speed and working memory. It is important to assess well being during the background and history checking, how a client presents is important in knowing whether to refer them to clinical services. Assessors should be aware of the additional needs that depression and anxiety confer to the workplace and ensure that appropriate referrals are made, either to clinical services or via a GP. Differentiating between low working memory and processing speed that has arisen from mental health needs, which may be transient, and specific cognitive difficulty, relies on the presence of difficulties throughout the client's history, for example during school, wide variations in GCSE subject achievement and more.

The background check is also vital in the case of older clients, as it differentiates between a client who has always struggled with specific cognitive difficulties, versus those who are experiencing difficulties for the first time. This could be critical in older clients, who may be experiencing symptoms of mild cognitive impairment, a potential precursor to dementia. It is important to assess if the cognitive difficulties are specific and developmental, or applied across all the domains, gradual and progressive. Risk factors for dementia include vascular problems, brain injury, alcohol abuse and smoking, family history. Women are more likely to suffer from dementia than men. If dementia is suspected, this must be referred to a GP.

17. Feedback to client

Acceptance and understanding have been identified as essential factors in determining whether an individual is able to take control and overcome their difficulties. Providing feedback is perhaps the most important part of an assessment. The goal is to enable the individual to understand their difficulties in order that they can take appropriate action. It is through a proper explanation that the client will be able to start developing their awareness and understanding. If, following an assessment, a client leaves *without* a greater understanding of the nature of their strengths as well as their difficulties, and what they can do to overcome them, then it has been a waste of their time and money.

Feedback should take three forms:

- Verbal feedback, immediately after testing;
- Written feedback, provided promptly after the session (e.g., within two weeks);
- Opportunity to ask further questions after the written report is provided, either by phone or in person;
- Ability to question, challenge and comment on the content of the report.

Verbal feedback should happen immediately after testing, and this should involve a careful explanation of the test results and their implications. The client's strengths and weaknesses should be described and strategies for dealing with the latter outlined. It is important to be positive. Many adult dyslexics will have already developed their own strategies and the way these can be applied constructively to deal with other areas of difficulty can be explained. Practical information about sources of further help, including agencies and appropriate literature, CD-Roms, DVD's and Web addresses should be provided. It can be helpful to include partners, colleagues or employers in the feedback session so that they too develop a better understanding of the client and their needs, but this is only appropriate with boundaries on confidentiality and should be the client's choice.

Once the report has been drafted, the client must agree and confirm the contents before it is finalised, or at least be offered the opportunity. In the DOP survey in 2014, we found that 75 per cent of clients had not been offered the opportunity to preview their report; 54 per cent were not offered a feedback session and over one third reported that their report was sent directly to their organisation before they had seen it. This is incredibly poor practice and, while the report content must remain the objective assessment of the professional conducting the report, it is unethical to treat clients with this level of disdain. This only adds to the anxiety and difficulties that the client experiences. To quote from the survey:

'It wasn't just that the report was shared with my employer, it was then given to my manager who shared it with everyone in my team. They were then told they had to attend a dyslexia awareness training day/half day delivered by my assessor which I was told it was best for me not to attend. Some didn't attend. After the training, my assessor fed back to me that my team had discussed how they couldn't see how someone with dyslexia could possibly do a responsible, professional job at my level, with a reading age described on the report as age seven. The assessor said she had to defend me and said she couldn't see any reason why not. She didn't tell me what was said, just that it was very unpleasant and had been better for me not to have been there to hear. Shortly afterwards I was moved from my team and job (not at my request- I enjoyed the job and felt I was good at it and that I brought skills that other team members didn't have, although these weren't recognised by the manager, who was very left brained and procedurally-driven). I was then put in a room with no windows on my own in the basement for two months whilst my manager told me they were trying to find a suitable role for me. I was given work to research that was below my normal area of responsibility, but which I did, but it was never used. At the request from a trade union rep I was then moved into another office, but still given quite worthless research to do that was not used, and then about a month later, relocated to a different area office in a different part of the UK. I relocated but my history went with me, and about two years later my post was made redundant.'

This client was excluded from her diagnosis, her follow up, and her employer was able to use the information to discriminate against her. We must ensure that dialogue is maintained, and any difficulties resolved before an abridged version of the report (see the next section) is released to any third party. While the employer may have paid for the report, our BPS and HCPC codes of conduct are quite clear that the end-user client's rights must be respected. (See *BPS Code of Ethics and Conduct* (2009) Section IV, 1: Respect, the principles of privacy and self determination).

Communicating an assessment outcome whereby no specific condition has been identified needs to be handled with great sensitivity and care. A Practitioner must consider the personal history of the individual involved and the severity of difficulties with which they are presenting. An individual who has had a screening test indicating possible dyslexia as compared to someone who has no prior screening will clearly require different approaches. As with all feedback, the recipient needs to leave with a good level of understanding regarding what the outcome means and how you have reached your conclusion.

Communicating the pattern of results as opposed to focusing on the index scores is recommended for non-SpLD outcomes – often there will be the flat profile as opposed to the spiky set of scores. It can also be very helpful for the recipient of the feedback to understand how the assessment does not focus on emotional intelligence and how important this can be in performance at work. Even if the scores across the tests are very low, always try to find some aspect of the assessment where you observed the individual performing more effectively, maybe highlighting in a positive way that they did well to complete all of the assessment or their enthusiasm for completing the tests.

It is also crucial that one remembers the reasons why the individual has been referred to you for an assessment. Just because they have had a non-SpLD outcome does not mean the difficulties should not be supported. As Chartered psychologists, we should be equipped to offer a number of other options to support individuals in the workplace. Suggestions could range from coaching to additional training options. Whatever the suggestion, try to ensure the individual leaves the assessment with some potential avenues for development.

This relates to the *BPS Code of Ethics and Conduct* (2009) Section IV, 3: Responsibility.

18. Report writing

Written reports of assessments are only as good as the information they generate, and reports are useful only to the extent that they convey information clearly to the client, as well as employers. They are a form of advocacy that should lead to a dyslexic person, as well as those working with them, being better informed than they were, not more confused. When working with adults it is essential to remember that reports, although read by professionals working in education who might be familiar with the terminology, often end up in the hands of individuals who have no such background. Formats designed for reporting the results of the assessment of children are inappropriate.

In writing the report, the author should consider whether it will help the dyslexic understand and address their difficulties, and whether it will help employers support the dyslexic person. Essentially the report should reiterate what the client was told at the end of the assessment session. It should be as 'jargon free' as possible, because the language can be misinterpreted. Statistical terms such as 'significance' can be confused with real-life significance when it might in fact be of no practical importance. Even 'mean' and 'average' can be misinterpreted – the word 'competent' might be more appropriate. Statistics can support and provide evidence for a diagnosis. They can also mask functional limitations. An average score on a standardised test does not tell the whole story. They do not, for example, reflect the effort required to gain such a score, behavioural observations are therefore essential.

Reports should:

- Be clear and concise
- Consider the reading age of the person reading them (use the 'readability statistics' option in MS Word to ensure reading level matches)
- Describe abilities and skills
- Provide an explanation of how the tests relate to everyday experiences
- Address the immediate and the future
- Recommend evidence based solutions
- Use adequate font size
- Good spacing
- Use of graphs, diagrams and visual descriptions
- Use summary bullets
- Avoiding lengthy prose

Recommendations should be specific enough to address areas of difficulty, but allow for experimentation and the client's own perspective. Bear in mind that without job analysis and employer feedback on current performance and expectations, no recommendations can be considered reasonable adjustments.

An adult should feel comfortable about showing a report to people; a manager, for example, who will not necessarily be trained in test interpretation. **Further, managers have no right to some of the information. They do not usually have access to the IQ scores of employees, and there is no reason why the dyslexic person should be an exception.** Many purchasers may feel that they have a right to this information, but please be aware that to give it may contravene our professional code of ethics and conduct. This relates to the *BPS Code of Ethics and Conduct (2009)* Section IV,

1: Respect, the principles of privacy and self determination.

All confidential data should operate on a 'need-to-know' basis. An employer who has commissioned a report needs to know:

1. Does the Equality Act 2010 apply to this person (which can be true with or without a clear diagnosis, based on poor memory or processing speed alone).
2. What are the strengths and weaknesses of my employee, insofar as they relate to workplace issues (i.e. not scores).
3. What do I, as a responsible employer, need to do next (please be aware that this is usually a workplace needs assessment, since without contribution from the employer and job analysis reasonable adjustments cannot be determined).

A tripartite reporting system can be helpful. Reports should begin with a summary. This can then be followed by recommendations for skill development, compensations and adjustments, particularly as this is all most employers are interested in. There should then be a diagnostic section which provides the evidence for the interventions. It should be descriptive and not include scores. The latter are best summarised in a detachable appendix, so that the client can make them available at their own discretion.

19. Guide to the range of assessments for adults

There are different types of assessment but the terminology is not always clear and there can be a confusion between a screening, diagnostic and workplace assessments. The following guide is based on Leather (2011).

Type of test	Who administers?	What does it involve?	What it should reveal?
Checklists	Self administered.	Paper and pencil Answering a list of questions using a rating scale.	The first step in the process: A possible indication of dyslexia.
Computerised tests	Self administered.	Filling in questionnaire and test items online.	Will provide a report on performance.
The Dyslexia Adult Screening Test (DAST)	Psychologists/ Dyslexia specialists/ Trainers.	1:1 interview plus administration of test items covering: <ol style="list-style-type: none"> 1. literacy 2. working memory 3. non-verbal reasoning and verbal fluency. 	At risk quotient/score for dyslexia. Profile of strengths and weaknesses. Can be interpreted with workplace relevance if the tester has appropriate training.
Teachers/ college assessment	SEN/Learning Support Teachers.	Testing is often in-house for education or college purpose only. Wide variety of reading and spelling tests used.	Will give outline of literacy skills.
Specialist teacher/ trainer assessment	Qualified specialist teachers, some will have additional qualifications. Look for: Dip/PGCE SpLD, AMBDA/APC, PATOSS registration.	Detailed assessment of cognitive abilities. Tests of phonological processing and working memory, tests of literacy. Highlighting areas of strength and weakness.	Overview of skills and abilities. An explanation of problems Recommendations for skills training and workplace adjustments.
Applied psychologists	Chartered psychologists, Qualifications to look for: C.Psychol and HCPC registration.	Detailed assessment of intellectual, processing abilities and literacy. Highlighting areas of strength and weakness.	In depth profile of strengths and weaknesses and an explanation for why the problems are occurring. Recommendations for skill development and adjustments specific to the job role..

Type of test	Who administers?	What does it involve?	What it should reveal?
Workplace assessments	Psychologists, and consultants/trainers who have specialist knowledge of Neuro-diversity, job demands and impact of syndromes in the workplace. DWP contracted Access to Work assessors (see below).	Identification of skills and abilities in relation to the demands of the job and the shortfall.	Provide practical information about tools and techniques Recommendations regarding adjustments.
Update assessment	Chartered, applied psychologist & specialist teachers.	Current measures for evidence-based adjustments.	Provides information for evidence-based adjustments.

More information about Workplace Needs Assessment

The main purpose of a diagnostic assessment is to profile the individual's range of cognitive abilities alongside literacy skills. In the absence of any previous assessment, ultimately it needs to confirm or rule out a specific learning difference. Broad recommendations can be provided at this stage, but these are generic in nature and it is advisable for any employer to request that the individual also has a workplace needs assessment. This can clarify the demands of the role, gather insights from the manager and identify where the specific areas of occupational difficulty rests. Recommendations provided in this report should be tailored to the individual's role and organisation. They should be aligned to the reported difficulties and not just a extensive generic list of all possible options. This follow-up assessment can also provide the occupational psychologist with an opportunity to use their range of expertise and knowledge of the work domain.

This process is used by organisations to establish their legal obligations of 'reasonable adjustment' to accommodate disability under the Equality Act 2010 and needs to be very thorough in order to protect both client and employer from legal risks. The authors of this document plan to create further advice on workplace needs assessment, with a guidance document in its own right.

The UK Government has put a programme in place entitled 'Access to Work' to support disabled people in the workplace (paid employment). Through this programme, grants are provided to help the individual do their job in the form of specialist equipment and adaptations, support worker/job coach etc. The disability or health condition must affect their ability to do the job in some way.

How does the programme work?

1. The disabled person agrees with their employer or future employer that they need some form of help to perform the role.
2. The individual contacts the Access to Work Centre www.gov.uk/access-to-work
3. The Access to Work Adviser contacts the individual and the employer to gather details of help required and agree for a workplace assessment
4. A Workplace Assessment is undertaken by an independent organisation contracted to undertake this work. The assessors have experience of working with disabled adults and undertaking

workplace assessments. The assessment includes meeting with the individual and their employer (line manager/HR manager) to discuss the difficulties experienced within the job. Following the visit a report is submitted to the Access to Work Team. It should cover information provided by the individual about their disability, the job being performed, their difficulties and the workplace environment. The report also provides recommendations for specific technology and aids, training and coaching.

5. The Access to Work Team agrees what recommendations should be taken forward and the extent of financial grant that will be awarded to cover this. The grant is based on the size of the organisation (no. of employees) etc.
6. The individual and their employer will then usually decide how they will take forward the recommendations and take action.

20. Occupational competence for the role

Assessments should be conducted by someone with occupational competence for the role. All applied psychologists need to ensure that they are practising within their contextual boundaries. An occupational psychologist wanting to do testing with children, for example, would need additional training because the basic qualifications in occupational psychology do not include understanding of classroom environments, teaching processes or early learning development. Likewise someone performing an adult assessment for an occupational purpose would need a specific grounding in workplace issues, adult learning and performance management processes.

The Stage 2 qualification process, nor HCPC registration, does not bestow competence for diagnosis. The Neurodiversity and Employment Working Group have a LinkedIn group where we can refer you to appropriate training. Also, check with the BPS Professional Development Centre for CPD workshops, we run one per annum on the assessment of adults.

This relates to the *BPS Code of Ethics and Conduct* (2009). Section IV, 2: Competence.

21. Legal considerations

Psychologists may be called upon to provide evidence in legal proceedings (e.g. in employment tribunals). The importance of sound ethical practice is, therefore, paramount. Information regarding psychologists also working as Expert Witnesses can be found from the BPS 2010 document *Psychologists as Expert Witnesses: Guidelines and Procedure for England and Wales, 3rd edition* (www.bps.org.uk/expertwitnessguidelines).

1. **Contracts:**

Business contracts ensure clarity around administrative matters, terms and conditions of the psychological work (e.g. the purpose of the assessment, payment, where the assessment will take place, how the information gained from the assessment/report will be disseminated to stakeholders including timescales). A written contract minimises the potential for confusion and allows for informed consent. These contracts can be provided for both employers and employees and agreed upon and signed before the assessment commences.

2. **Disclosure**

Psychologists must act ethically to balance the interests of the organisation with respect to the individual's rights. It is best practice to ensure that employers are not provided with confidential information about a client other than what they need for occupational purposes, for example background history and FSIO typically would not be disclosed. A good contracting process will ensure that this is discussed at the beginning and that clients and employers know where they stand when they enter in to the assessment. It is also good practice for clients to read and confirm understanding of their reports before it is sent to their employer.

3. **Appropriate assessment techniques, reporting the findings and formulating solutions:**

Structured methods of assessment (e.g. systematic interviewing procedures and formal cognitive and attainment tests) provide sound and detailed methods to evaluate an individual's history, cognitive profile, attainments and identify the functional implications on performance. Tests need to be selected appropriately and the results critically evaluated to provide a robust and justified conclusion. How these findings are reported (e.g. the language used when providing a professional opinion) can also lend weight to the conclusion and subsequent diagnosis of an individual. From this basis, strategies to meet the need of the individual/ stakeholders can be formulated and delivered.

4. **The Equality Act 2010:**

This merges various laws to protect people from discrimination and combines them into one area of legislation. Guidance provided with the Act makes it clear that neuro-diverse conditions are covered by the Act as if they were disabilities. Employers, therefore, must make 'reasonable adjustments' for their neuro-diverse employees. Information on disability and employment can be found at the Equality and Human Rights Commission (www.equalityhumanrights.com). Legislation differs in Northern Ireland and information on disability and employment can be found at the Equality Commission (www.equalityni.org).

5. **Scope of practice:**

In order to work lawfully, safely and effectively within an area of practice, the Health & Care Professions Council recognise the need for individual psychologists 'to exercise personal judgement by undertaking any necessary training and experience' in order to meet their standards (HCPC Standards of Proficiency- Practitioner Psychologists, August 2012). A list of recommended courses and literature can be found in the appendix.

6. **Professional Civil Liability Insurance:**

This is advised to protect psychologists against civil liability claims arising from their professional activities.

7. **The Information Commissioner's Office (ICO):**

This is the UK's independent public authority, set up to uphold information rights. The ICO oversees various legislation including, the Data Protection Act (1998). As psychologists handling personal information about individuals, we have legal obligations to protect that information under the Data Protection Act, and must register with the ICO (www.ico.org.uk).

22. Informed consent

The following is taken from the *BPS Code of Ethics and Conduct* (2009). Section IV, 1:

Psychologists should:

1. Ensure that clients, particularly children and vulnerable adults, are given ample opportunity to understand the nature, purpose, and anticipated consequences of any
2. professional services or research participation, so that they may give informed consent to the extent that their capabilities allow.
3. Seek to obtain the informed consent of all clients to whom professional services or research participation are offered.
4. Keep adequate records of when, how and from whom consent was obtained.
5. Remain alert to the possibility that those people for whom professional services or research participation are contemplated may lack legal capacity for informed consent.

In terms of our clients with dyslexia, dyspraxia and other conditions, providing assessments in occupational settings may lead to conflicts of interest with informed consent. The client may feel that they have no choice but to submit to testing for fear of their employment. They may not understand the implications of their employers knowing the outcome of the test. Clients, (that is, the testee, not the bill payer), should be fully able to opt out of the testing process at any time. They should be absolutely clear on which aspects of the results will be shared with their employer and the purposes for which those results may be used.

We have a duty of care to discuss these issues not just with our testee clients, but with our purchasing customers as well to that we can be sure we are meeting our Chartered status obligations. Customers should be aware of the confidentiality boundaries of sharing personal data and be briefed on receiving a summary report.

23. Appendices

Example report headings

Summary

A paragraph executive summary of the diagnosis and bullet points of main reasons why. Reiterate the Equality Act 2010 obligations.

A brief paragraph/diagram explaining the term 'dyslexia' or 'dyspraxia', what this means in the context of the workplace and where this leads to strengths and weaknesses for the individual concerned.

Recommendations

Individual – Explain what the individual can do, based on your findings, to enhance their performance. This might include managing stress levels, working with mind maps, using telephone reminders, for example.

Workplace – Identify areas where workplaces can help, for example providing quiet space for reading/writing to avoid noise distractions

Reasonable adjustments – You may want to describe some of the reasonable adjustments that can be purchased, for example technological support and strategy coaching. Most likely, you will recommend a separate workplace needs assessment, as reasonable adjustments need to take into consideration the needs of the employer, the role, the work environment and the team as well as the individual's ability. Making recommendations without exploring these areas is legally risky.

Diagnostic section

It is preferable leave numbers out of this section, and instead refer to categories of 'below competent – needs support', 'competent', 'above competent – a strength'. Make sure that you consider the person's job role when you do this – how can this information help an employer know what to do, and employee understand their limitations and potential? It needs to be presented in understandable, meaningful language that will be relevant to that job role. Is the job technical or professional, for example? This will affect the style and language you use.

WAIS strengths and weaknesses – Describe/show using graphs and diagrams the individual's strengths and weaknesses including how these are relevant in the workplace. Include examples of how, for example, working memory affects performance and communication.

Attainment scores strengths and weaknesses – Describe/show using graphs and diagrams the individual's strengths and weaknesses including how these are relevant in the workplace. Include examples of how, for example, rapid naming or reading comprehension affects performance and communication.

Scores Appendix

Background information – This is private and not necessary for employers, so should be included in this back, detachable section.

WAIS Scores – Consider whether full scale IQ is relevant/useful here.

Attainment Scores

24. Further reading and references

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Further reading

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25. Contributors and consultation

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- Professional Association of Teachers of Students with Specific Learning Difficulties (PATOSS) – Lynn Greenwold
- The British Dyslexia Association – Margaret Malpas
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- The Adult Dyslexia Organisation
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