

# Get Working

In this screencast we are going to look at a few different scenarios and settings and look at the sorts of difficulties people with dyslexia and co-occurring difficulties might have within those settings. We will be looking at categories of areas where a person might have difficulty and the amalgamation of these, which forms a sort of patchwork quilt. This really explains why there are areas that for various reasons knit together or sew together. And it is clear that as people supporting individuals with dyslexia and co-occurring difficulties in a variety of settings, we need to, in one way or another, provide strategic support of a very precise type. In outline:

# **Remembering Data (Slide 2)**

Remembering data comes into everyday tasks as well as work tasks.

### Manipulating Data (Slide 3)

This is another part of the puzzle: you can remember things in some situations but sometimes it is much more dynamic where you may have to remember and then do something else or go away and do something then return and still hold that bit of information. Juggling information is probably the best metaphor for a lot of these things that we do.

# Multi-tasking (Slide 4)

Multi-tasking is probably a better cognitive term but it is mental juggling. Many classroom tasks are multi-tasking as are many work-based tasks.

### Perception of Time (Slide 5)

The perception of time comes into all of these things and the ability to time things adeptly and appropriately.

# **Explicit Instruction (Slide 6)**

All of these knit together or sew together to show us why we need to, one way or another, provide explicit instruction to those we work with. This builds sub-skills and allow skills to develop. Strategic support needs to be given to enable people to reach their potential and not be struggling, often silently, because they are misunderstood within the place that they work and which happens all too often.

### Remembering Data – the Detail (Slide 7)

People with dyslexia often have a particular difficulty remembering information that isn't understood. There are people who are very adept at picking up information, for example, reading a series of twelve digits and remembering it straight away, a photographic memory. There are different sorts of information that someone might not understand, at different stages in their life or work life and in their development of literacy:

- Phoneme-grapheme links If we don't know these little building blocks, we can't use them to recode as in looking at print on the page and understanding how the sounds knit together to make the words.
- Encoding As we do in spelling where we say a word to ourselves when hearing it and then we know how to write it or break it down to have an attempt at spelling it. In English and other orthographically 'opaque' languages the phoneme-grapheme links are not always straight forward. Encoding can always remain a difficulty for people



with dyslexia, even those who have had good support or who have developed coping strategies such as using dictionaries or online resources. Difficulties can also be exacerbated or cause a regression at times of stress, tiredness or illness. Interestingly atmospheric changes such as weather, particularly humidity, can affect some people with dyslexia. These changes can affect processing and cause a dip in the person's performance; this may concern those who don't understand why this dip in performance has occurred.

- Procedures If it is a new procedure, the person with dyslexia may not understand it. They then may not have any way of sequencing the sub-elements correctly and this causes place keeping issues. Just knowing that a procedure is not fully understood can be stressful and lead to the forgetting of the whole procedure. This can occur, for example, when teaching learners with dyslexia how to understand phonemegrapheme links. Certain programmes advocate a particular way of doing this which may not help learners. It can be helpful to break procedures down into small steps to help the person remember the procedure and to explain the reasons behind it. This can also be critical for some professions for example nursing, where dose calculation and the procedure for doing this has to be carefully learnt so that in times of stress or tiredness it does not become impaired and mistakes are then made. In school or college, for example, children or adults with numeracy can suddenly go blank when faced with a stressful challenge and having to juggle information and remember steps to undertake tasks such as those required with long division or multiplication. They are complex tasks that require attention switching. We should also be especially mindful if they are new tasks as there may be no framework to support memory. We should think about providing a framework to support that memory and provide a structure to support understanding. Other sequences such as remembering random numbers (e.g., phone numbers), credit card pins and passwords can also cause difficulties. Making a password or number meaningful can be helpful.
- Terminology All jobs have their particular terminology and starting a new job means that a lot has to be learnt at once. Similarly starting school or college/university can be the same and require structured support. English as an Additional Language teachers recommend that it is better to create the need for a word when committing it to memory or show a task before assigning a word to it so that the label has something to stick to. Rote learning is not easy for those with dyslexia. Words that are similar can also cause confusion. It is better to give a word in full first before using acronyms and abbreviations and when repeated it can be helpful to do this again. It is easy to underestimate the difficulty that abbreviations can cause when a person has to keep looking up what it means.
- Work place expectations and duties In a new job it can be difficult to take on everything at once and remember how to do something and what is expected of them. When remembering one thing other things may slip. Reminders, asking if the person is clear on the procedure, reassurances and visual prompts can be helpful.
- Verbal instructions Sometimes people understand the things you are asking them to do but are not sure about the order in which you want them carried out, particularly if they are not said in order or if too many steps are stated at once. Generally, three things at once are as much as most people can remember. It helps to provide prompts, to provide written reminders of how to do things and to allow the person to check the procedure.
- Working Memory Under pressure working memory can go blank. Retrieval can be slow and the person may need to step back a few stages to recall. If this happens



give the person space and time to recall. Putting them under pressure can make it worse. It helps to structure people's work environment so that they are not put under pressure. Some jobs have stressful elements to them. We should try and minimise those and not make tasks that should be routine into pressurised tasks or we, as managers of that context, are failing.

 Simple, menial Tasks - Apparently simple tasks can sometimes be very difficult. For example, taking tea/ coffee orders for several people can be difficult unless written down for someone with dyslexia. This is juggling information again. Short messages can also be difficult to remember if not written down and an intercepting task may result in the message being lost. The names of people or objects can be suddenly lost even though other details are remembered. Talking through the details can help with the recall process. There are situations where it can be critical to remember someone's name for example with police enquiries or when giving a witness statement. The difficulty is one of linking the verbal label to the semantic information.

### Manipulating Data – the Detail (Slide 8)

In workplace and in everyday life, we are often in situations where we are holding information and juggling it.

- Activating Schemas Activating schemas is what we do in a comprehension task. When we read certain words lots of other things should spring to mind. It is like dropping a pebble in the water and seeing the ripples. When we say the word, dog lots of images come to mind from our own unique context. If you have a lot of experience of reading then you tend to get better at this textual comprehending. If you have had much less experience of reading then you may progressively get worse. This is known as the 'Matthew Effect' in reading where those who start well continue well but those who do not, continue to fall behind and do not generate this rich comprehending.
- Lateral thinking This can be a great strength for those who have dyslexia but can also be a disadvantage when a straight forward connection is not made. Categorising can be helpful particularly with those who have English as a second language as it teaches linking and compartmentalisation which are both sub-skills of comprehension, both oral and textual.
- Processing Speed and Efficiency Some people take longer to process information whether written or spoken. This is something we have to allow for and is one of the accommodations made for those with dyslexia in examinations who are allowed extra time for reading. Efficiency in reading may also be impaired in sequencing when bits of information are dropped. There may be a difference in processing verbal and nonverbal information because this can inform the support we offer. Flow diagrams, mind maps and pictorial information can help when giving instructions and asking them to follow steps through. When people are watched over as with an assessment process, this observation can make them anxious and subsequently go blank on the process. Undertaking dummy runs can help those vulnerable to processing errors to get used to the procedure and avoid this 'blanking' situation.
- Interpreting Data Skimming information can be difficult if we don't have the correct semantic framework. This can make exams particularly onerous. Sorting out what is relevant and what is not relevant then becomes more taxing. When teaching comprehension skills, we need to give a framework and teach learners how to decide what is relevant and what is not relevant. This applies equally in a new job situation.



'Visual noise' is used to describe a situation where there is a lot of information that is not necessary or that can distort what the person sees. For example, if lines on a page are close together and a person is scanning it may be hard for them to spot what the target words actually are. A document with key words or key numbers highlighted can provide help with the scanning process and help to keep them in mind. Tightly packed tabular information in tables or in spreadsheets with rows and columns can be difficult to scan so presentation of information should be considered. Zooming in and zooming out of the information means that the bigger picture is easily lost. Some readers have preferences for particular fonts, the use of colour and good spacing can also help. Glare or 'light noise' on screen or paper can also cause distortion, causing words to split, swim or go fuzzy in front of the eyes. Auditory background noise can also cause information to be dropped or lose priority when manipulating data.

- Attention Shifting When we are manipulating data, we are using our working memory. Attention shifting is a part of this process. We need to retain some information in our memory while we shift our attention to something from long-term memory or select some new information coming in and then come back and amalgamate these. We know that attention shifting is easier for some and more effortful for others. People who do well at attention shifting are people who do well on tests of working memory. So, attentional difficulties and dyslexia are very closely linked in some respects.
- Organising Data Organising tabular information can be challenging. Think about • nurses who have to organise tabular information, they have to record things on complicated charts, double-checking or monitoring can be helpful in this instance to make sure that they are registering the information correctly. For example, in a nursing situation that could become a critical error if a temperature is misread or solution in a drip is misreported. People have to write reports for their jobs, managers do, police officers do: organising data to write reports can take a lot of effort for a person with dyslexia. In an academic context it is something that a lot of people need help with and when people are promoted at work and are required to produce reports, we mustn't underestimate the difficulties that someone might have in doing this. It is helpful to have examples of good/ poor practice, to have training sessions and create an atmosphere where people are free to ask. In an academic situation, from higher education down to primary settings it is important to teach people how to structure their ideas, then it becomes habitual: they know how to do it. Study skills are often not taught early enough in schools and many things we see arise from that lack of strategic support early on.
- Retrieving Sequential Information Filing and form filling are also about having information in mind and knowing where to put it these activities create similar problems in different situations but the underlying difficulty is the same i.e., retrieving the sequential information.
- Prioritising and Scheduling If you don't know what is the most important, relevant or urgent information then prioritising and scheduling can be difficult. Trying to hold lots of permutations and possibilities in your mind at once is difficult. If you are then trying to draw some kind of timetable from so many options then scheduling becomes something really complex. Using software such as Microsoft OneNote, mind-mapping software, Gantt charts or other task or project management software can be helpful. The role of personal preferences must not be underestimated – mind-maps are not helpful for everyone....



### © Dyslexia Action 2022 Multi-tasking – the detail (Slide 9)

Most of what is on this slide has already been said. So, to review, when you are multitasking you have to process a wide variety of incoming information. When people refer to sensory processes, they are often referring to hearing and seeing but there are all sorts of other ways and we get all sorts of information, from the way we are moving, from vibration information, from balance, touch and so on. Gross motor information comes from the movements of our arms, legs and posture. Fine motor information comes from the complex information received by our eyes and from touch. It is quite hard to understand the degree to which our cognitive apparatus, our thinking, is tied to the eye movements we make. Research is increasingly showing the way in which attention and working memory are linked to the small eye and hand movements that we make.

Hand writing and copying from the board are all very complex tasks that have many subskills and include attention shifting, holding information and amalgamating information at the same time. If we don't have postural stability and good control of our shoulders then even if we have good hand control then fine motor skills may still go wrong because of lack of efficiency with the shoulders. So, these are all things to think about in an academic situation when considering hand writing. You may then have to process all of this plentiful and manifold information while a secondary task is in process. You may have to automate some movements e.g., working and compiling a chart in the case of a nurse. Mentally cueing things in the right order or writing them down in the correct order can be difficult when there are other things vying for your attention. All of this is bundled up with attention shifting too. Our performance dips when we have a lot of things to do at once. We might have automated things and be efficient at performing these things, but that doesn't mean that those we are working with are too. We may have to structure what they do and give them structured practice to be of help. If there is still no improvement then we may need to structure additional further support.

# Perception of Time (Slide 10)

People with dyslexia can be prone to day-dreaming and providing regular breaks can prevent this from happening. A drop in the awareness of time may also occur and lead to difficulties completing within a given timescale. The individual can also become so engrossed in the task (because of the level of concentration needed) that they feel exhausted at the end of the activity. Breaking the task into sub-tasks or sub-components and building them up into a structure can help with this. If we don't have an awareness of time passing then estimating the time needed to complete a task becomes difficult and is often under-estimated or over-estimated. For those working in time specific tasks this can lead to omissions or being unable to complete a task as given. Writing down a time schedule can help with this and also allowing for familiarity of the task to increase speed in application. Perception of time, planning and scheduling are all interwoven with multi-tasking and manipulating data. For people with dyslexia these things can be an enduring area of weakness.

# **Explicit Instruction (Slide 11)**

Explicit instruction and strategic support are often required for individuals with dyslexia. Explaining duties clearly perhaps in a flow chart, map or diagram can be helpful particularly early on in a career role. These should not just be written in a sequential form departmental maps with particular roles and responsibilities outlined can also help. Try and give



information in a visual form and don't let the person have to keep asking or become frightened to ask. Creating a working atmosphere where people feel supported and are able to ask for support is also important. It can be helpful to clarify expectations about their role whether this is at work or in an academic context. This encourages self-efficacy and enables people to talk about their performance, putting in place a structure that can be reviewed and helping them to think about their own performance in a constructive way.

'Metalinguistics' takes us back to the importance of explicit understanding the phonemegrapheme links and other aspects of literacy (syllable structure, syntax, suffixing conventions, etc.). With mathematics the key thing is instilling understanding the subcomponents of place value, this sets the person on the road to mathematical understanding. 'Register' refers to the understanding of multiple contexts and why the language we use in reports is not the same as that used when talking to a friend. This can be taught in a work context using terminology and report-writing language and in schools and colleges using academic register.

### Final Slide (Slide 12)

All of these aspects are bundled together and when we are working with people in the workplace or as students in school, college or university there are lots of ways that they may need support. The more we understand the areas that might cause problems, the better we may be able to anticipate these and put in place strategic support in advance. This will be better for people and enable them to get working efficiently.

