

## **‘Dyslexia or Dyscalculia?’ by June Massey**

June started this session by introducing us to different forms of Neurodiversity including dyslexia, dyscalculia and dyspraxia.

She shared various definitions of dyscalculia such as the one from the National Numeracy Strategy (DfES 2001):

*“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”*

She explained that this condition is present in about 5% of the population and can co-exist with dyslexia and dyspraxia; alternatively, the student may have no difficulties with reading, writing or practical tasks. Dyscalculia may be recognised in students through, for example, the inability to count backwards in groups, having no concept of size, and not being able to apply times tables if learned by rote.

June then went on to share a definition of Dyslexia as ‘a learning difficulty that primarily affects the skills involved in accurate and fluent word reading and spelling’, explaining that it occurs across the range of intellectual abilities, and is to be thought of as a continuum not a simple category with features including that of difficulty with phonological processing and short term auditory and working memory. She explained that ‘a good indication of the severity and persistence of dyslexic difficulties can be gained by examining how the individual responds or has responded to well-founded intervention.’ (Rose Report 2009). Attainment or automatic development of skills may not match up to the student’s underlying abilities.

June then moved on to dyspraxia and explained the corresponding difficulties with orientation and direction, poor fine motor control e.g. handwriting, drawing and weak time management and poor organisational skills

As another example of neurodiversity June explained about Meares-Irlen Syndrome (Scotopic Sensitivity). Oversensitivity in the brain to light and colour, with signs of oversensitivity to sunlight and or fluorescent lighting, black print on white paper being uncomfortable to read and print disappearing when being read.

This all led on to possible teaching strategies including:

- giving explanations in small steps; chunking and checking/ ‘little and often’;
- using practical and visual examples - anything goes if the student learns!
- frequent rest breaks to absorb information;
- allowing all students to use calculators, fingers, equipment that works for them;
- giving materials/PowerPoints to read in advance.

June went on to give particular examples of multisensory teaching;

- Manipulatives – Dienes Apparatus, Cuisenaire Rods, money, measuring tapes, jugs and scales, flexitables, counters, fraction ‘pies’, fingers, rulers, materials used in your teaching area.
- Visual materials – number lines, place value and equivalent fraction sheets, squared paper (may not be suitable for students with Mears-Irlen), multiplication squares

She explained that any materials can be age-appropriate if presented in the right way.

It was now time in the session to apply something of what we had learnt and we completed an exercise in subtraction using Dienes blocks.

The session had been fast paced and informative and we were left with much to ponder, to follow up and to apply to our own teaching. This was a very worthwhile and expertly covered session.