

## Brief information about various impairments

### Specific learning differences

Specific learning differences (SpLDs) is an umbrella term. It is used to describe a group of conditions which affect people in similar, but not identical, ways. SpLDs occur in people who have at least normal levels of intelligence – some people with SpLDs have very high levels of intelligence, though they may not have achieved in line with their capacity, due to the SpLDs.

SpLDs are essentially neurological differences which result in various specific effects. All of them include:

- Limitations on the capacity and effectiveness of working memory (especially short-term memory for auditory material).
- Effects on the person's speed of information processing and ability to manage sequences.
- Other effects which are more variable.

The precise definitions of these conditions remain somewhat controversial. Broadly speaking, the other effects are used to label the different SpLDs as follows:

- **Dyslexia:** the main additional effects are on reading skills – the person's reading fluency or reading comprehension (or both) may be affected. Reading is highly effortful, and memory for what was read is poor. Many people with dyslexia also have difficulties with writing skills, especially spelling and grammar.
- **Dyspraxia:** the main additional effects are on muscle coordination – especially complex skills like hand-eye coordination. The difficulties are significant clumsiness, slow learning of new movement skills and poor coordination of multiple skills.
- **Dyscalculia:** the main additional effects are on number use and arithmetic skills. The difficulties may include an inability to grasp the correct basic number sequence, and will often include difficulties with basic arithmetic (addition, subtraction, division and multiplication) which result in difficulties with more advanced numerical skills (eg algebra, probability, statistics).
- **Dysgraphia:** the main additional effects are on writing skills. The difficulties may include very poorly formed handwriting, very slow writing, poor grammar, poor spelling and poor writing fluency.

Technically, Attention Deficit (Hyperactivity) Disorder (ADD or ADHD) is not an SpLD. It is a developmental disorder, but in a university population people with ADD/ADHD have many similar needs to students with SpLDs, so it is sometimes reasonable to group them together.

- **Attention Deficit Disorder** and **Attention Deficit Hyperactivity Disorder** are developmental conditions which specifically affect the person's ability to concentrate and to pay attention. The ability to focus attention, the ability to share or divide one's attention between tasks and the ability to sustain attention can all be affected.

### Autism Spectrum Disorders (ASDs)

Autism is a 'pervasive developmental disorder' meaning that the signs and symptoms first become apparent very early (such as in infancy or early childhood). They can be difficult to recognise, and the cause is not yet known. The signs and symptoms continue for the person's whole life, though some people do learn over time to reduce the expression of their ASD behaviours.

The signs and symptoms of autism can vary widely from person to person - hence the umbrella term Autism Spectrum Disorders is often used. One of the ASDs is **Asperger's Syndrome** (AS) and people with AS are increasingly common in the university population.

These conditions affect people with the full range of intelligence (from very low to very high) but only those people with at least average intelligence are likely to appear in a university population. People with autism are unhappy with a medical label and the use of terms such as 'symptoms'. They have proposed the term 'neurodiversity' to describe their situation, and suggest that those without ASD features can be described as 'neurotypical'.

The features of ASDs are not visible to a casual observer but a trio of core symptoms have been identified, affecting social interaction and communication skills and producing behaviours and interests which tend to be restricted, repetitive and stereotyped.

People with AS tend to have less difficulty with speech than those with other forms of autism, but they may also have specific learning differences (such as dyspraxia) or developmental disorders (such as ADD) or neurological conditions (such as epilepsy).

In a university setting, people with AS may have difficulties in a range of activities:

- The transition into university can be challenging as there are many changes in routine and responsibilities to cope with, added to which there may be difficulties in establishing new friendships and appropriate social interactions with new classmates.
- The learning and teaching styles at university can sometimes suit a person with AS better than the styles used in compulsory education, but they can also prove problematic. Students with AS may have particular difficulties with small group work and assignments which require presentations.
- Students with AS may interpret language in very literal ways, including having difficulties with metaphors, sarcasm, irony, jokes and so on. They may also appear tactless and lacking in diplomacy because their ability to empathise with others is limited.
- Students with AS may benefit from having a mentoring arrangement (this can be organised by the institutional Disability Service and funded using the Disabled Students' Allowances), as within this setting they can choose to discuss any difficulties with social relationships as well as any academic issues.