Designing learning for autistic and neurodiverse students

Collaboratively created guidance from the OpenTEL Open & Inclusive SIG, July 2020

Autism and neurodiversity

Autism and neurodiversity are labels used to describe people who have certain differences in the way in which they think and in the way they interact with society. Typically, people on the autism spectrum may be less aware of, bound by, aligned to or responsive to societal expectations or constraints. This different way of thinking can be an enormous strength, and some great thinkers and innovators are autistic. However, this can lead to challenges for autistic people, especially in settings like the workplace and education, where specific things are expected that might not align with an autistic person's skills or abilities.

This guide aims to help raise awareness of some of the differences autistic people may experience, and to help educators design learning, activities, tutorials and assessment that can help autistic students demonstrate their potential on a more level playing field. It was collaboratively created with autistic people (OU staff and students.)

Terminology

Language and terminology used to describe autism is highly debated, so we start with a note on the definitions and terminology chosen for this guidance.

Autism is a catch-all name for a spectrum of social and learning differences. Some resources refer to autism spectrum 'disabilities', 'disorders', 'developmental issues' or 'conditions', but these have been criticised for positioning autism as negative or something that needs to be fixed, using a 'deficit model' and positioning autistic people as 'not normal'. Studies have suggested that the terms 'autistic', 'autism' and 'the autism spectrum' are preferred by autistic people (e.g. Kenny et al, 2015), so we use these terms in this guidance. Additionally, whilst the diagnosis Asperger's Syndrome is no longer given you might find students using this term (Asperger's Syndrome is a type of autism.)

Neurodiversity is a wider term that relates to autism, AD(H)D and some other differences, and works to recognise and celebrate differences as normal, natural variations in human genomes. In this guidance we follow these principles.

There is a debate around inclusive language models, particularly whether 'person first' (i.e. 'person with autism') or 'identity-first' (i.e. 'autistic person') language is preferable. Studies suggest that identity-first language is preferred by most autistic people and their families, so in this guide we use we use identity first language throughout.

Figure 1: diverse minds

Don’t generalise

All autistic people are different. Societal generalisations about autism, such as that ‘autistic people don’t make eye contact’, or ‘autistic people are hyper-intelligent’ are only true for certain people, often not the majority. These stereotypes can be distressing to the student, and can damage their chances of success in education, if a one-size-fits-all approach is taken. It is always best to ask the student about their needs, and then arrange for adjustments to suit the student. This guidance lays out some common adjustments and considerations, but these are by no means an exhaustive list.

Avoid figurative language

It is well documented that many people on the autism spectrum can struggle with figurative language, such as metaphors, similes and irony, and may interpret literally spoken or written language that has intended nonliteral meanings. This means, when you’re teaching or writing, make sure your language is easy to understand and that there aren’t any hidden or implied meanings, things that neurotypical students would understand, thus placing autistic students at a disadvantage. In your own communications be as explicit as possible. For example, if expecting students to complete a task, it is better to state what exact outcomes you require, e.g. rather than saying “Research X topic”, say “Spend thirty minutes reading about X topic and write down some notes summarising your reading.” Executive functioning can be difficult for many autistic people, so being clear about how long tasks should take is beneficial.

Figure 2: ‘I say one thing but mean another’

Design for anxiety

Autistic people may get anxious or upset about unfamiliar situations and social events. They request detailed information well in advance so they can visualise the situation (be it a tutorial, event or course) and plan it in advance, or may prefer to avoid them altogether. Educators should aim to provide this information as far as possible, and should be understanding if an autistic student chooses not to participate. Give as much information as possible to reduce anxiety. For example, at the start of a tutorial state when breaks will be, when questions should be asked and what tasks are going to be undertaken during the session.

‘Stimming’ can be a useful coping mechanism for autistic students, particularly when they are anxious or feeling under pressure. Stimming is a repetitive action that can calm or sooth; whilst many non-autistic people will stim by fiddling with pens or their hair, autistic people may exhibit more unusual actions, with common stims including flapping hands, rocking, rubbing a leg or arm, spinning, or repeating specific words or phrases. Stimming is extremely normal, and educators in a classroom environment should ensure that autistic students feel comfortable if they do need to stim, and that other students don’t feel threatened or concerned if one of their peers stims. Specifically, you should not try to stop or distract a person from stimming as this will usually increase their anxiety.

Figure 3: Stimming

Educators should also try to design learning so it doesn't provoke unnecessary anxiety. Activities such as ice breakers are particularly likely to be anxiety-inducing and should be designed so that they don't put students on the spot, or necessitate eye contact, verbal contribution or proximity to other students. Assessments can also provoke anxiety; educators should endeavour to make assessments as inclusive as possible, and work to support students in the run up to summative assessments with adjustments such as practice sessions or exemplars (please note, this does not give autistic students an unfair advantage, it merely levels the playing field.)

Inclusive collaborative work

Collaborative work can be challenging for many students. Students with and without disabilities have reported feeling anxious about working with others, unsure about how roles and workloads are to be allocated, frustrated when others don't work in the way they need or expect, and unhappy about how this affects their final grade. Autistic students can be particularly affected by this, and they have the right (under the Equality Act 2010) to request adjustments to the way they are required to engage in groupwork, including an alternative activity if necessary.

If group or paired work will be part of a session, keeping working partners the same throughout, or offering an individual activity as an alternative, may help. Be explicit up front about how this will work and don't insist that the groupings are constantly changed between activities.

As educators, there are two areas we can support students: firstly, by designing groupwork to be as inclusive as possible so it is less likely to be an issue for students, and secondly, by being flexible and making adjustments to groupwork activities if they are required. McPherson et al have detailed guidance on designing and delivering inclusive groupwork, available on the IncSTEM project website.

Adjustments to reflective activities

We know autistic people have different ways of thinking and experiencing the world. Studies have suggested that some autistic people think more visually than verbally, thinking more 'in pictures' than using an 'inner voice', whilst others may have a reduced ability to visualise. Verbal processing may be delayed, with more time and energy needed to process verbal information, so allow them space to do this. Diversity in thinking is clearly a strength and something to be celebrated, but tasks and activities involving written or oral reflection can be challenging for autistic students who have less experience using an 'inner voice', and we often receive requests for adjustments for reflective activities.

When making an adjustment to a reflective activity, it's best to speak to the student and find out what would be most suitable for them. A typical alternative is asking students to produce a factual account rather than a reflective account and then asking the student certain questions to guide them to reflect on it. This can result in a strong reflective account, and can help the student gain valuable skills. Another option is to ask for a visual representation of the reflective account, such as a mind map, timeline, or other form of representation. It is important to consider that the student may have had negative experiences in the past, and terms like 'reflection' can provoke extreme anxiety or stress, so understanding, empathy and kindness will go a long way.

When designing a reflective activity or assessment, consider the language you use and try to build in flexibility. Terms like 'reflection' can be very loaded and distressing for students, so it's good to

define clearly what they mean in your particular context. Also, try not to mandate a written account if an oral or visual account would also meet the learning outcomes.

Avoid overstimulation

Autistic people can find bright lights, strong odours, garish colours or loud, repetitive or continuous noises stressful or uncomfortable. At times this can become overwhelming, and the person may need to stim or remove themselves from the environment. Knowing how and when it's ok to leave a group can be stressful, so ensure they are able to do this with a minimum of disruption.

Educators should try to avoid these kinds of sensory antagonisms. In designing course materials, try to adopt soothing colour combinations and avoid too many bright, clashing or garish colours. Some studies suggest yellow is a particularly problematic colour, but further research is needed. Similarly, when creating podcasts or multimedia learning resources, try to avoid loud or relentless noises, and when arranging a physical learning environment (such as a classroom) try to consider lighting and décor as well as giving the student opportunity to choose their own seating to reduce stimuli.

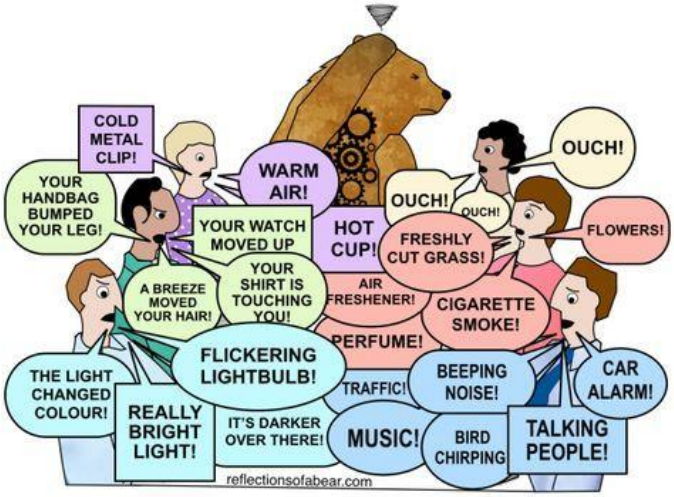

Figure 4: overstimulation

Support behaviour decoding

Autistic people may communicate and interact with people in ways that are different from what society categories as normal or socially acceptable. This can lead to frustrations, misunderstandings, and can mean autistic people feel anxious about social interaction. As part of this, autistic people can sometimes (although not always) find it hard to intuit how other people are thinking or feeling, and may have learned to decode behaviour and facial expressions to compensate for this. Educators should be aware of this, and if an autistic student requests things that would help (having the video function on during Skype calls, for example) they should do their best to support them.

Avoid timed information assimilation activities

Autistic students (and students with a variety of additional needs or disabilities) may take a different length of time to understand or assimilate information; they may be faster or slower than neurotypical students, depending on the student or the type of information. As part of creating an inclusive learning environment, educators should be aware of this and should not expect information to be assimilated in a timed context.

Clothing and presentation

Autistic students may find a particular outfit, style or colour makes them feel more comfortable, so educators should avoid making judgements or avoid drawing attention to the student if they often wear the same clothes, or if they wear something different from the usual style expected of students. This may also be linked to sensory overstimulation, and some students may find formal clothes excessively uncomfortable.

Autistic people can sometimes present in their communication style differently - i.e. using repetitive phrases, overly formal language or pauses, and should be given time to respond and not made to feel awkward or different. Also, if they are studying something of particular interest to them, they may appear to become obsessive about a particular topic and want to discuss it at length. This can be difficult for tutors and in the tutorial environment.

Additionally, studies have suggested that a higher number of autistic people may be gender-fluid, transgender or non-binary (enby), when compared to the neurotypical population. Therefore, as part of a wider commitment to equality, diversity and inclusion, educators should work to ensure that their learning environments are safe spaces for students to present in different gender identities, and that other students are similarly understanding and welcoming.

Masking and mental health

Many autistic people learn to hide or 'mask' their challenges, and this means that they may be struggling in ways that are not apparent to others. Don't judge their need for support, or assume everything about your learning environment is fine with them, based on your own observations. Autism is about the student's experience of the world, not how the world experiences the student.

Masking can consume a vast amount of energy and over time this can be detrimental to their mental health. For this reason, they may need to chunk learning down into smaller pieces and take regular breaks; 'intensive' programmes may not be suitable. On the other hand, an obsessive special interest may need to be indulged intensively, with time to rest and recuperate afterwards. Check in regularly with the student in a way that doesn't make them feel singled out. Ensure that all students are aware of any sources of pastoral support for their mental health.

Feedback on this guide

This guide was collaboratively created with a range of OU staff and students; people with lived experience of autism and of supporting autistic people in learning, and people with research expertise in autism in higher education contexts. We recognise that there are many other perspectives to explore, so if you would like to give feedback or add additional information to this guide, please contact kate.lister@open.ac.uk.

Figure 5: Neurodiversity infinity symbol