Designing learning for autistic students

Collaboratively created guidance from the OpenTEL Open & Inclusive SIG, July 2020.
Revised by Marilyn Long and Tim Coughlan, November 2023.

This guide was collaboratively created by autistic and neurotypical OU staff and students with these aims:

- ✓ to help raise awareness of the different challenges and academic strengths that are part of the autistic student experience.
- ✓ to help educators design learning activities, tutorials, and assessments that create a more level playing field and support autistic students in achieving their potential.

Quotes are all provided from autistic students in a 2023 study of their OU study experiences.

Stereotypes, misunderstandings, and reality

All autistic people are different.

Just as each member of any other societal group is different. Societal generalisations about autism, such as that 'autistic people are loners', or 'autistic people are hyper-intelligent', are often based on media depictions that are unhelpful. These stereotypes can be distressing to autistic students and can damage their chances of success in education.

> "I think the stereotypical idea of how an autistic person presents is what most people think of, so are unaware of the wider range of experiences autistic people have"

Autism can be described as a 'different wiring of the brain', leading to differences in the ways in which a person thinks and interacts when compared to a 'neurotypical' person and the prevalent norms of society. Their different way of thinking can be a strength in higher education, but when the prevalent expectations for specific ways of working do not align with an autistic persons skills or abilities, further challenges may be created.

> "I feel very connected to other people in the right circumstances"

Differences in ways of thinking and experiencing the world can make it more difficult for neurotypical and autistic people to understand and empathise with the other.

Terminology

Studies have suggested that the terms 'autistic', 'autism' and the 'autism spectrum' are preferred by autistic people (Kenny *et al.*, 2015), so we use these terms in this guidance. Whilst Asperger's Syndrome is no longer used as a medical diagnosis, you might find students using this term as historically it was recognised.

> The intention in this guide is to present diversity in ways of thinking as equal, rather than as a deficit or difference from the norm or neurotypical.

Designing accessible learning material
Here are some common considerations, by no means an exhaustive list.

Avoid figurative language

Many autistic students can struggle with figurative language such as metaphors, similes, and irony.

They 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 which could put autistic students at a disadvantage.

Be flexible with timing in assimilative activities

Autistic students may take a different length of time to understand or assimilate information.

A student may be faster or slower than neurotypical students or other autistic students, depending on the context, activity, or 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 restricted, overly specified timeframe.

Give clear instructions

Be as explicit as possible in your communications. For example, if expecting students to complete a task, it is better to state what the expected outcomes are, and why.

This isn't just about giving more detail on timings, ensure that the expectations are clear. For example, rather than saying "spend thirty minutes reading about X topic", be clear on the learning process or outcome for the activity. Try breaking the task down into bullet points, and make each instruction absolute, for example:

- This activity is on researching X topic from online sources.
- search online for information about X topic. (Spend no more than 10 minutes.)
- read about X topic from the information you have found. (Spend no more than 20 minutes.)
- make notes on 3 important aspects of X topic.
- what aspect would you like to explore further?
- share your notes on the module forum.

The activity instructions could include some questions to answer based on the reading. This would direct the student toward the type of information to search for or what they need to understand about the topic.

Design to avoid potential stressful situations. Read support statements.

Autistic students may find unfamiliar situations or changes to expectations challenging, even distressing.

Detailed information provided in advance can help to visualise the situation and plan it in advance. They may prefer to avoid some kinds of events altogether.

> "I attended the online tutorial and was not expected to actively socially engage at all! No need for camera or microphone and I didn't have to type if I didn't want too - they could see I was there just by me joining the call."

Educators should aim to provide this information in advance as far as possible and should be understanding if an autistic student chooses not to participate. Prior to a tutorial,

- ✓ state when breaks will be,
- ✓ when questions should be asked and
- ✓ what tasks are going to be undertaken during the session.

This will benefit all students.

> "During tutorials I lose focus and often miss out on important parts."

Educators should design learning so it doesn't provoke unnecessary anxiety.

Activities that are particularly anxiety-inducing for students include,

- ! ice breakers 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 should be designed to be inclusive and avoid singling out individuals separately because of their differences.

- ! educators should support students in the run up to summative assessments by offering practice sessions or exemplars. This levels the playing field so that the assignment isn't biased against those who find that unknowns lead to anxiety.

Support behaviour decoding. Different isn't 'wrong'.

Autistic students may communicate and interact with their tutors and peers in ways that are different from what society categorises as 'normal' or 'socially acceptable'.

This can lead to frustrations, misunderstandings, and can mean autistic students feel anxious about online interaction. Some may 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. If an autistic student requests adjustments to online interactions they should do their best to support them.

> [everyone was asked] "to have their mics/cameras on - it had always been optional before - I had to come out of the [online] tutorial as it panicked me"
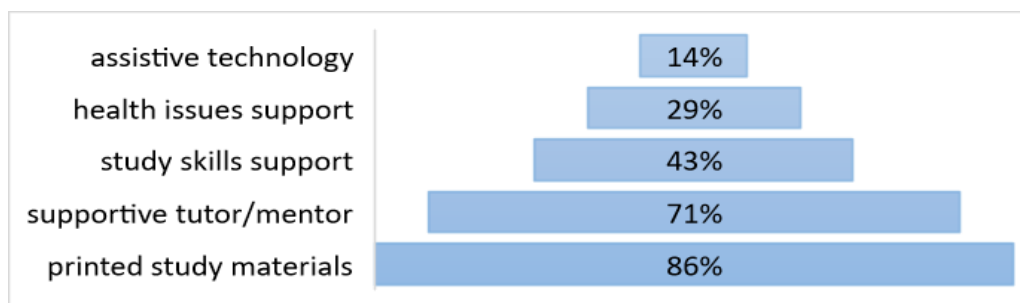
Autistic students may have 'executive functioning' difficulties. Challenges of higher education, such as having greater responsibility for their own learning, organisation, and time-management can create additional barriers.

Autistic students who may engage deeply with the detail of a specific text or activity, may want to take more time to fully understand it, rather than quickly moving on to the next topic. Offering ways to leverage this, such as opportunities to choose to engage more deeply with a particular topic as a way to make progress in the module will benefit their learning. Offering choice of topic, focus, and presentation format is key to engagement.

"the course structure is very helpful and it makes clear what I need to be doing all the time"

A 2023 survey of autistic students studying with the OU asked about their support priorities.

assistive technology	14%
health issues support	29%
study skills support	43%
supportive tutor/mentor	71%
printed study materials	86%

"I am beginning to feel very isolated. I have contacted my tutor twice regarding my work, and I haven't heard anything back."

Staff knowledge and understanding about autism. The reality.

The 'Arriving at Thriving' report on inclusion in HE and overcoming barriers to achieving learning potential highlighted significant problems with academic staff who "don't understand, particularly, invisible disabilities", and fail "to implement the students learning support plan" *(Hector, 2020, p. 22)*

There is limited understanding of autistic learners' positive attitudes towards study and their preference for autonomy. *(Knott and Taylor, 2014, p. 424).*

A survey of OU staff found that, of ten disability categories, the lowest proportions of staff were confident in supporting students with autism (47%) and mental health conditions (45%). *(Lister et al., 2020, p. 334).*

## Avoid over-stimulation – and under-stimulation.

Autistic students may find extremes of sensory input stressful or uncomfortable, and at times overwhelming.

Educators should try to avoid these kinds of sensory antagonisms.

- ✓ adopt colour combinations with good contrast and calm tones.
- ✓ studies suggest yellow is particularly challenging, but further research is needed.
- ✓ avoid loud or insistent noises, and sudden or erratic changes in audio-visual resources.
- ✓ create learning material that allows for changes to sensory input according to need.

Problematic sensory input may include:

- ! bright lights and clashing colours,
- ! loud, repetitive, or constant noises,
- ! fast-paced audio-visual presentations.

Check WCAG guidelines!
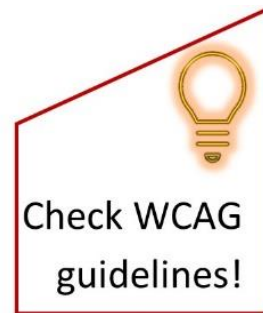
"I struggle with purely audio input"

"when everyone is talking at once I find it very overwhelming and exhausting"

Inclusive collaborative work. Autistic students have rights.

Collaborative work is challenging for many students. They report anxiety about working with others, uncertainty on roles and workload allocation, frustration when peers don't work in the way they need or expect, and worries about the impact on their final grade. Autistic students can be particularly affected by this. We can better support students by:

- ✓ designing groupwork to be as inclusive as possible so it is less likely to be an issue.
- ✓ being flexible and making adjustments to groupwork activities if they are required.

- ✓ keeping working partners the same throughout
- ✓ offering an individual activity as an alternative.
- ✓ being clear upfront about how the activity will work.

McPherson *et al.* have detailed guidance on inclusive groupwork on the IncSTEM project website.

Autistic students have the right under the Equality Act (2010) to request adjustments to how they are required to engage in groupwork, including an alternative activity if necessary.

Reflective activities. A picture can be worth a 1000 words.

We know autistic people have different ways of thinking and experiencing the world and diversity in thinking is clearly a strength and something to be celebrated.

Studies have suggested that some autistic people think more visually than verbally, thinking more 'in pictures' than using an 'inner voice' so tasks and activities involving written or oral reflection can be challenging and adjustments for reflective activities are often requested. Other autistic students may have a reduced ability to visualise, so there needs to be a recognition of diversity too. When designing a reflective activity or assessment, consider the language you use and try to build in flexibility. Define clearly what they mean in your particular context.

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. If an oral or visual account would meet the learning outcomes, then do not mandate a written account. Typical alternatives include:

- ✓ asking students to produce a factual account, then asking questions about the account to guide them to reflect on it, can result in a strong reflective account.
- ✓ asking for a visual representation of the reflective account, such as a mind map, timeline, or other graphical image.

> ! It is important to consider that the student may have had negative educational experiences in the past connected with terms like 'reflection'. So these can be very loaded and distressing and provoke extreme anxiety or stress. Understanding, empathy, and kindness will go a long way.

A word about stimming. Everyone does it.

'Stimming' is a common, repetitive, self-soothing behaviour that can calm or sooth.

Non-autistic people will stim by fiddling with pens or their hair, tapping the table or doodling. The difficulty for autistic people is that they may exhibit more unusual stimming actions such as hand flapping, rocking, rubbing a leg or arm, spinning, or repeating specific words or phrases. It can be a useful coping mechanism for autistic students, particularly when they are anxious or feeling under pressure, but also when occupied or content, or to take focus away from other sensory input. Educators 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 any anxiety. The student should be comfortable knowing that if they need to remove themselves from the environment that it's ok to leave the group. Knowing how to do so with creating disturbance, can prevent the situation becoming more stressful and remove any sense of exclusion.

What is the reality for autistic students? What should educators know?

The core diagnostic features of autism are -
- ➢ "persistent difficulties in social interaction and communication",
- ➢ "stereotypic (rigid and repetitive) behaviours",
- ➢ "resistance to change or restricted interests",
- ➢ "autism is a lifelong neurodevelopmental condition"

(National Institute of Health and Care Excellence, 2021).

Although not necessary for a diagnosis, other common features include –
- ➢ inflexible thinking,
- ➢ extreme sensitivity to sensory input,
- ➢ difficulty with sensory processing, and
- ➢ difficulty with emotional regulation.

Autistic students may use a particular communication or presentation style –
- ➢ using repetitive phrases or overly formal language,
- ➢ leaving pauses while speaking, particularly when answering questions, and should be given time to respond and not made to feel awkward or different,
- ➢ becoming obsessive about a particular topic they are studying or something of particular interest to them and wanting to discuss it at length, creating difficulties for tutors and in the tutorial environment.

Autistic students and gender issues -
- ➢ 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.
- ➢ 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 -
- ➢ autistic students may have learned to hide or 'mask' their challenges and may be struggling in ways that are not apparent to others;
- ➢ masking consumes a vast amount of energy and can be detrimental to mental health and well-being;
- ➢ don't rely on your own observations to judge their need for support, or assume everything about your learning environment is fine with them;
- ➢ discuss strategies such as breaking up chunks of learning into smaller pieces, taking regular breaks, or indulging an obsessive special interest 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 pastoral support for their mental health.

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Don't generalise

✓ read the student's profile or statement of need.

✓ give the student an opportunity to talk about their needs.

✓ arrange for adjustments that suit the student's needs.

❗ needs may change depending on the context or the activity which they are expected to do in their studies.

❗ needs may change even if the type of activity appears to be the same.

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Autism is about the student's experience of the world,

not how the world experiences the student.

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