

Inclusive Learning Project

Universal Design for Learning at UWTSD

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Learning Support, Student Services
UWTSD

Preface

These resources and the subsequent inclusivity framework have been devised by the Learning Support Coordinators at UWTSD to assist all staff in the development of inclusive practices in respect of their work with disabled students.

Included in this pack is an overview of the most prevalent disabilities encountered at UWTSD, with tips for academic staff and reference points for further reading. The subsequent framework builds on existing good practice and provides a framework for future development.

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Inclusivity: Universal Design for Learning

The term **Universal Design for Learning** means a scientifically valid framework for guiding education practice that:

- (A) Provides flexibility in the ways information is presented, in the ways students respond or demonstrate knowledge and skills, and in the ways students are engaged; and**
- (B) Reduces barriers in instruction, provides appropriate accommodations, supports, and challenges, and maintains high achievement expectations for all students, including students with disabilities and students who are limited English proficient.**

(The US Higher Education Opportunity Act of 2008)

Universal Design for Learning (UDL) was inspired by the universal design movement in architecture and product development whose goal was to make physical environments and tools useable by as many people as possible. UDL aims to incorporate design for all aspects of learning so that barriers are eliminated but challenges remain. UDL incorporates flexible goals, methods, materials and assessments in order to meet the needs of a diverse body of students, including disabled students. It has been adopted widely by US universities since its development in the 1990s and is currently gaining popularity as an approach to inclusivity in higher education in the UK and Ireland, along with Universal Instructional Design and Universal Design for Instruction, which advocate similar approaches.

There are 3 main principles which inform UDL:

- 1) **Provide multiple means of representation i.e. provide content and materials in multiple formats** (the 'what' of learning) in recognition that different learners may need different ways of approaching content. Some students, for example those with dyslexia or visual impairments, may grasp material more easily through auditory means than through printed text. If multiple representations are used, all students can make connections within and between concepts.
- 2) **Provide multiple means of action and expression i.e. give students multiple ways to show what they know** (the 'how' of learning) in recognition that students differ in how they can navigate a learning environment and express what they know. For example, a student with cerebral palsy or executive function disorders, such as dyspraxia or ADHD, may need to approach learning tasks differently. Some may be able to express themselves in written text but not speech, or vice versa.
- 3) **Provide multiple means of engagement i.e. use multiple methods of motivating** students (the 'why' of learning) in recognition that the ways in which students are motivated and engaged can vary greatly. Some students are engaged by spontaneity, while others, for example those with Asperger's Syndrome, can be disengaged or even frightened by such approaches and would prefer a strict routine. Similarly, some students with autistic spectrum conditions may prefer to work alone, while others may prefer to work in groups.

Universal Design for Learning at UWTSD

“UDL is fundamentally about proactively valuing diversity”; (Edyburn, 2010)

Much change has already taken place in universities towards inclusion. Moving toward true inclusion is not an easy transition and like all changes it requires a willingness to overcome challenges. However, a true commitment to inclusive educational practices will increase participation and student retention, widen access, raise attainment grades and ultimately benefit all. There can however be a staged model of transition towards full inclusivity and in order to achieve this ultimate goal at UWTSD we are adopting a Universal Design for Learning approach. A guide to good practice has been developed which includes practices which **must** be adapted by all lecturing staff from the end of January 2019; practices which **should** be adopted by January 2020 and practices which **could** be adopted and are considered to be best practice. This approach embraces the social model of disability and facilitates inclusivity and will facilitate the development of more inclusive educational practices in our university.

Further reading: Universal Design for Learning and Inclusive Teaching & Learning in Higher Education

Burgstahler, S.E. (Ed) (2015) *Universal Design in Higher Education: Promising Practices* Washington: University of Washington

CAST (2011) *Universal Design for Learning Guidelines version 2.0* Wakefield, MA: CAST National Center on Universal Design for Learning website: <http://www.udlcenter.org/>

[Disabled Student Sector Leadership Group \(2017\) *Inclusive Teaching and Learning in Higher Education as a route to Excellence* London: Department for Education](#)

Edyburn, D. L. (2010). Would You Recognize Universal Design for Learning If You Saw It? Ten Propositions for New Directions for the Second Decade of Udl. *Learning Disability Quarterly*, 33(1), 33–41.

[Kelly, K. \(2014\) 'Fostering inclusion with Universal Design for Learning' *Diversity and Democracy* Vol. 14, no. 4](#)

Padden, L., O'Connor, J & Barrett, T. (Eds) (2017) *Universal Design for Curriculum Design: Case Studies from University College Dublin* Dublin: Access and Lifelong Learning University College Dublin

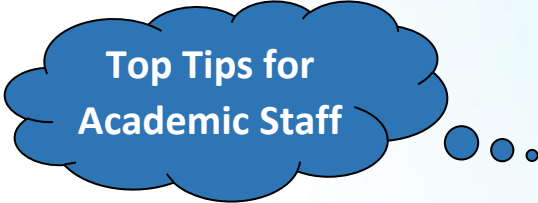
Wray, M. (2013) *Developing an inclusive culture in higher education: final report* York: Higher Education Academy

Attention Deficit Hyperactivity Disorder (ADHD)

This is a condition which disrupts attention and concentration, affecting around one to two per cent of the population. Individuals with ADHD may vary in how their symptoms present depending on the level of demand on them and characteristics of the environment they are working in (e.g. levels of noise etc).

Difficulties described by adults are as follows:

- Impulsivity - could be demonstrated by speaking and acting without thinking, interrupting others, difficulty waiting turn, lack of awareness of the context in which the person is behaving.
- Hyperactivity - more obvious in childhood, in adults this may be observed by difficulty sitting still, being restless and fidgety such as tapping feet, or being over-talkative.
- Inattention – the person is overly distracted, has poor concentration, difficulty in organising themselves and their work without practising and automating procedures, starting but finding it difficult to finish tasks, or missing steps in instructions.



Top Tips for Academic Staff

- If the student has a question, it is very difficult for them to concentrate on what is being said, as the question will completely dominate their thoughts. Consider ways students can 'park' questions to allow them to get it out of their heads, but know they will get a response later, e.g. using sticky notes, email or Facebook.
- Sometimes students with ADHD simply will not be able to attend lectures because of the effects of their condition, e.g. if their mood is very 'down', or very 'up' and so provision will need to be made for them to access the missed lecture notes.
- The hyperactivity element of ADHD often translates into feelings of internal restlessness for adults. Sometimes these feelings become unmanageable and they need to move around: fiddling with things, doodling, clicking pen tops, shaking legs, can all help those with the condition manage this and help them to maintain concentration.
- It requires huge effort to be structured and organised. Last minute cancellations and room changes can cause the structure students have created to collapse and compromise their studies, and should be done only if absolutely necessary.
- Reading is a problem for most students with ADHD because it demands a great deal of effort to focus; guided reading lists could help with this.
- Unlike some of the other developmental disorders, ADHD is not confined to particular areas of life and the effects are felt across multiple settings. It can therefore take a monumental effort to stop lives descending into chaos, and sometimes these efforts simply cannot be sustained.

For further information please visit www.adhdfoundation.org.uk

If you have any queries, please contact your Learning Support Coordinator

Dyslexia

Dyslexia affects about eight to ten percent of the population in the UK. Individuals with Dyslexia will have a history of difficulties with reading and/or spelling. They may also have difficulties with organisation, planning and memory.

Difficulties described include:

- Taking longer to read papers, books etc.
- Comprehending academic texts
- Making spelling errors and missing out key words
- Structuring assignments
- Remembering appointments and deadlines
- Finding their way to or around unfamiliar places
- Being punctual
- Remembering the necessary paperwork and equipment
- Remembering verbal instructions
- Task completion
- Learning new skills
- Revision for exams and recall during exams
- Taking down information accurately whilst listening



Top Tips for Academic Staff

- Don't ask a person with dyslexia to read aloud
- Be aware that a student with dyslexia may have difficulties staying focused when reading, writing and listening.
- Often people with dyslexia can demonstrate their understanding with a spoken answer but may struggle to put those ideas into writing.
- Teach one topic at a time in small chunks.
- Demonstrate and give examples.
- Slower processing speeds can result in difficulties with verbal fluency and word recall.
- People with dyslexia may benefit from explicit instruction broken down into clear points to aid sequencing.
- Be aware that the student may be using a digital recorder or other recording device.
- Provide handouts in advance so that students with dyslexia have time to read and understand them.

For further information please visit www.bdadyslexia.org.uk

Dyslexia Friendly Text – information sheet

Media:

- Paper should be thick enough to prevent the other side showing through
- Use matt rather than glossy and avoid digital printing which tends to leave the paper shiny
- Avoid white backgrounds for paper, computer and visual aids as it can appear too dazzling, instead use cream or a soft pastel colour.
- Some people with dyslexia will have their own colour preference

Font:

- Use a plain, evenly spaced sans serif font such as Arial or **Comic Sans**; alternatives include Verdana, Tahoma, Century Gothic and Trebuchet
- Font size should be 12-14 point, though some students with dyslexia may request a larger font
- Use dark coloured text on a light (not white) background
- Avoid green and red/pink as these are difficult for colour-blind individuals to read

Headings and emphasis:

- Avoid underlining and *italics* as these tend to make the text appear to run together: use **bold** instead
- AVOID TEXT IN BLOCK CAPITALS: this is much harder to read
- For headings, use a larger font size in **bold**, all lower case or capitals for the first letter
- Use boxes and borders for effective emphasis

Layout:

- Use left-justified with ragged right edge
- Avoid narrow columns (as used in newspapers)
- Lines should not be too long: 60 – 70 characters
- Avoid cramping material and using long, dense paragraphs: space it out
- Line spacing of 1.5 is preferable
- Avoid starting a sentence at the end of a line
- Use bullet points and numbering rather than continuous prose

Writing style:

- Use short, simple sentences in a direct style
- Give instructions clearly and avoid long sentences of explanation
- Use active rather than passive voice
- Avoid use of double negatives
- Be concise

Increase accessibility:

- Use flow charts to help explain procedures
- Use pictograms and graphics to help locate information
- Lists of 'do's and don'ts' are more useful than continuous text to highlight aspects of good practice
- Avoid abbreviations if possible or provide a glossary of abbreviations, jargon and specialised vocabulary
- For long documents, provide a contents page at the beginning and an index at the end

Check readability:

Microsoft Word and Outlook have a feature which gives you the ability to view “readability” statistics for what you are writing, so you know how simple or complex your writing is. This can help ensure texts are accessible for your intended audience.

In older versions of Word, the feature is found on the status bar; in versions from 2013 onward, you have to enable the feature first, and then access it by running a spell and grammar check.

Word uses the following ways of assessing the readability of a text:

- The Flesch Reading Ease score rates text on a 100-point scale; the higher the score, the easier it is to understand the document. For most standard documents, you should aim for a score of approximately 70 to 80
- The Flesch-Kincaid Grade Level score rates text on a US grade-school level, e.g. a score of 5.0 means that a fifth grader, i.e. a Year 6, average 10 year-old can understand the document.
- For most standard documents, you should aim for a score of approximately 5.0, by using short/er sentences rather than dumbing down vocabulary
- It is recommended that you check long documents in sections so that you know which parts are harder/too hard.

Use accessible formats:

- It is important that documents and publications are prepared to be accessible in alternative formats for people with reading difficulties. These should include availability in electronic format which can be read by screen reading software.
- Printed documents are created in computers, so it should be possible to issue the electronic files and some documents will only be available electronically.
- Word files are the easiest for individual viewing preferences and for listening
- Portable Document Format (PDF) files keep the presentation better than Word files, but are not as easy to use
- Publicise availability of accessible formats.

Preparing a document for text-reading software:

- Listening to a document using a text reader will take longer than visual reading
- Put full stops after headings to make the voice drop and pause; a pale tint similar to the background colour will make the dots less visually distracting
- Put semi-colons, commas, or full stops after bullet points to make a pause
- Use Styles in Word to organise headings and formatting
- Avoid automatic numbering as some text readers will not read these. Use manual
- Contents Page listings should be hyperlinked to the relevant section to aid navigation. Number menu items
- Use internal and external hyperlinks for ease of navigation
- Avoid text in capital letters in mid-line, as they may be read as single letters
- Include as few signs and symbols as are absolutely necessary e.g. asterisks or dashes (both short and long), as these will be spoken
- Long dashes should be avoided: use colons to make the voice pause
- Use straight quotation marks, as curly or slanting ones may be read out as 'back quote' by some screen readers
- Avoid Roman Numerals and No. for number
- Consider whether abbreviations and acronyms need full stops
- Text readers may have difficulty with tables in Word and may not automatically move on to the next cell without manual use of the Tab key
- Avoid text in images, as listeners cannot hear it. Repeat in the main text
- Use hyphens in compound words to aid text reading pronunciation
- Chunk phone numbers to avoid being read as millions or hundreds of thousands.
- There can be difficulty in distinguishing sounds from background noise and they may be light or noise sensitive and this can affect concentration

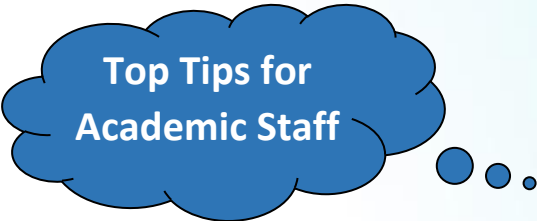
For further information please visit www.bdadyslexia.org.uk

DCD (Developmental Co-ordination Disorder) or Dyspraxia

This is a motor co-ordination disorder affecting two – three percent of the adult population in the UK and impacts a person's everyday life skills, such as preparing a meal.

Challenges include:

- Handwriting difficulties
- Skills requiring balance
- Slower at learning new skills which require speed or accuracy
- Learning to drive
- Organisation, time management and planning skills
- Taking information down at speed
- Navigation difficulties, even with places they have visited previously



Top Tips for Academic Staff

- Handwriting is usually a major difficulty and sometimes typing can also be affected
- Bumps, falls, spills are common and may affect practical work
- Speech may be unclear and there may be difficulty pronouncing some words, which can cause anxiety during presentations, for example
- Some students with DCD/Dyspraxia have difficulty with organising the content and sequence of their language; avoid putting the student on the spot during discussions and give them time to formulate their responses
- Physical fatigue can occur due to poor posture and muscle tone
- Memory is usually poor, especially short-term memory and there is a tendency to be disorganised
- Poor sequencing can cause problems with activities which include Maths, reading, spelling and structuring assignments
- Poor relocating - looking quickly and effectively from one object to another - is common and can affect copying from a board, screen or book
- There can be difficulty in distinguishing sounds from background noise and they may be light or noise sensitive and this can affect concentration

For further information please visit www.dyspraxiafoundation.org.uk

Autistic Spectrum Condition (ASC)

This is a lifelong, developmental disability that affects how a person communicates with and relates to other people, and how they experience the world around them. (National Autistic Society 2015).

ASC, which affects around one percent of the population, can include the assessment of having had persistent difficulties with social communication, social interaction, and restricted, repetitive patterns of behaviour, interests or activities to the extent that they interfere with their everyday functioning. People with ASC might also experience over or under sensitivity to touch, taste, sounds or light for example.

Those with high functioning ASC often have high ability but poor social skills, as they cannot always empathise with others. The condition has been colloquially termed 'mind blindness' because of the inability to 'read' another's mind.

ASC may co-exist with other conditions such as dyslexia, dyspraxia or dyscalculia.

People with ASC sometimes experience heightened sensory awareness, perceiving stimuli undetected by others.

This can result in sounds, smells, lighting and feelings against the skin becoming intrusive and distracting.

Those with ASC also commonly develop a special interest and expertise in one particular area.

The student with ASC frequently has remarkable strengths. It is common to have an excellent memory, particularly for facts and figures. They can be meticulous, focused and have a good eye for detail and errors. They are also often honest, conscientious, original, creative and good with foreign languages. Many students with ASC work to these strengths and choose subjects like mathematics, science and computing to study at university level.



Top Tips for Academic Staff

- Students with ASC are individuals first, with their own unique personality
- For an effective working relationship, general knowledge about ASC must be combined with specific knowledge of the individual student

For further information please visit www.autism.org.uk

If you have any queries, please contact your Learning Support Coordinator

Hearing impairment

This is when your hearing is affected by a condition or injury. Some people are born with hearing loss, while others may develop it as they get older.

People who are Deaf or hearing impaired will use a range of communication methods that may include speech, sign language, finger spelling, residual hearing and lip reading or a combination of these.

Top Tips for Academic Staff

- Even if someone is wearing hearing aids, it does not mean that they can hear perfectly; they may still need to lip-read.
- Ensure you have the listener's attention before you start speaking
- Ensure you have face-to-face contact if speaking to them directly
- Try not to move around the room too much or turn away from your audience
- Speak clearly, but not too slowly and don't exaggerate your lip movements as this can make it harder to lip-read
- Allow time for the student to adjust to unfamiliar lip patterns
- Ensure the room is well lit and the student can see your face clearly – try not to stand in front of windows which will put your face in shadow
- Use natural facial expressions and gestures
- Don't shout – it can be uncomfortable for hearing aid users and will look aggressive
- If the student doesn't understand what you've said, don't keep repeating it, try re-phrasing it instead
- Write unfamiliar names or terminology on the board for clarification
- Provide any instructions or information for in-class tasks and assignments in writing
- Be aware that background or residual noise can be very distracting; you may need to set ground rules for class and group discussions
- Consider seating arrangements so that the student has a clear view of the other students and any support workers such as a Note-taker or Communication Support Worker
- Use a microphone or wear a radio aid if asked

Students who are Deaf or hearing impaired may have a support worker to interpret sessions into British Sign Language (BSL). If the student is using communication support:

- Always remember to speak directly to the person you are communicating with, not the interpreter
- There may be a short delay in the interpreter completing the translation to BSL, so try to monitor the pace of discussions to ensure that a BSL user has an opportunity to contribute
- Provide as much information as possible in advance of lectures and seminars so that the Communication Support Worker can prepare specific terminology.

For further information please visit www.actiononhearingloss.org.uk

If you have any queries, please contact your Learning Support Coordinator

Medical conditions and other disabilities

These are numerous and often unseen and include long-standing illnesses or health conditions such as diabetes, epilepsy, cancer, HIV, and chronic heart disease or a range of complex, rare or genetic medical conditions.



Top Tips for Academic Staff

- Not all students will experience study-related difficulties due to their conditions; they may be managing their condition and any resulting symptoms effectively
- Students with conditions within this category often experience 'flare ups' and this can lead to periods of absence or poor performance
- Students may face on-going issues with fatigue and/or pain. They may be taking medication which can lead to concentration problems and difficulties sustaining study

For further information please visit www.wales.nhs.uk / www.nhs.uk

Mental Health Conditions

Mental health problems occur when there is a disturbance in the way an individual feels, thinks or behaves. If untreated, this can have implications for the individual's ability to function, work or maintain relationships.

There is a wide range of mental health conditions which include mood-related disorders, anxiety-related disorders, psychosis, eating disorders and personality disorders.

Top Tips for Academic Staff

- Mental health conditions often manifest in decreasing concentration and memory, fatigue, worry, lack of engagement, avoidance and altered self-perception
- Sometimes physical symptoms may also be experienced - some of these, such as sweating or irritability, may be visible
- With the right support and/or treatment, individuals can and do recover even when they have experienced severe mental health difficulties
- Social situations may be particularly difficult for an individual experiencing mental health illness
- Group work and meetings may be particularly challenging as social interaction and development of peer relationships may sometimes be difficult. Group arrangements in particular may require formal allocation to ensure that the student isn't 'left out'
- A higher degree of informal supervision than might otherwise be expected may be necessary
- Students with mental health conditions may find presentations challenging and their condition may prevent participation. Staff should consult the Statement of Compensatory Measures and make reasonable adjustments, providing learning outcomes can be maintained. Reasonable adjustments might include allowing the student to present to just the tutor, or a small audience or to present first or last if that would help. An alternative piece of work could be considered, providing learning outcomes permit.
- Students with mental health conditions may, at times, need to go out during sessions, be unable to attend full contact hours, or find early morning sessions difficult due to additional fatigue or anxiety caused by their illness, or because of the effects of medication.
- Be as accommodating as possible in relation to arranging one-to-one meeting times. It is also helpful to provide written information which the individual can take away with them.

For further information please visit www.mind.org.uk

Physical impairment / mobility issues

These can affect the bones, joints, muscles or nerves which control movement and applies to any condition which limits a person's mobility or movement or causes pain on movement. It also includes medical conditions which limit mobility, such as cerebral palsy, fibromyalgia, multiple sclerosis and chronic fatigue syndrome.

Top Tips for Academic Staff

- Students with mobility impairments will take longer to move around campus so try to avoid last minute room changes wherever possible
- Consider the impacts of timetabling locations; students with mobility impairment should not be disadvantaged due to late arrival if timetabling requires them to move across campus between sessions
- Handwriting and dexterity-focused tasks can be difficult – the student may have a Notetaker or a Practical Support Assistant (PSA) accompanying them in lectures
- Ensure all physical environments the student is required to attend are accessible and free from hazards. Consideration should also be given to such things as whether doors can be easily opened and whether there is enough space for a wheelchair
- Students with a mobility impairment sometimes find that physical fatigue can be worse at certain times of the day, so you may need to offer 'time out'
- There may be occasions when students with mobility impairments cannot attend sessions – the student will need access to the content they missed
- If the student uses a wheelchair or has a mobility aid, try to sit at the same level as the student, do not lean on the wheel chair or aid as it is likely to form part of the student's personal space

For further information please visit www.wales.nhs.uk / www.nhs.uk

Visual impairment

This refers to sight loss which is not correctable by glasses. Individuals with a degree of sight loss can choose to register as blind or partially sighted following assessment with an ophthalmologist:

- Individuals registered as blind can range from those with no light perception to those who can read only the top letter of the optician's eye chart from three metres or less.
- Individuals registered as partially sighted are only able to read the top letter on the eye chart from a distance of between three and six metres.
- A fully-sighted individual is able to read the top letter of the eye chart at twenty metres.

There are numerous eye conditions which affect people in very individual ways. The RNIB has a wealth of information, including a list of eye conditions and their likely effects.



Top Tips for Academic Staff

- Consider ensuring introductions take place in such a way as to allow identification of name to a voice
- Verbalise any information which is written, drawn or shown during sessions
- Check how the student would like to receive feedback
- Discuss with the student issues which group work and presentations may give rise to
- Be aware of hazards in the classroom
- If present, be aware that a guide dog is a working animal and should not be approached or petted without the owner's permission; ensure all other students are also aware of this
- Arrange seating so that the individual is seated with the light behind them and so you are not in shadow
- If the student does not have a Practical Support Assistant (PSA) with them and you think they need to be guided when moving round the room or building, ask them if they would like assistance by offering to take their arm and describe the route and any hazards

For further information please visit www.rnib.org.uk