



## **ADHD Information Sheet**

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#### What is ADHD?

ADHD is a lifelong neuro-development difference with 3 core behaviours'

- Predominantly inattentive type problems with attention, distractibility, short-term memory, and learning (sometimes referred to as ADD).
- Predominantly hyperactive type impulsive, poorly self-monitored behaviour.
- Combined type most individuals with ADHD/ADD fall into this category.

Adults with ADHD experience difficulties in remembering, concentration, personal organisation, and planning, as well as behavioural, emotional, and social problems. People with ADHD have the same broad range of skills, interests, and intelligence as the rest of society. ADHD affects approximately 5% of the population, or 1 in 20. Comorbidity is the rule rather than the exception.

Everyone with ADHD is different. It is life-long, and it is not curable. The impact of ADHD tends to vary with age; the maturity of the individual and the change in their circumstances can lessen symptoms. As someone matures, they may be better able to cope with their ADHD, or they may struggle more due to the increased social expectations of them.

# Characteristic features of adult ADHD lie within six areas of executive functioning:

**Executive functions** refer to cognitive processes that help individuals manage and regulate their thoughts, actions, and emotions to achieve goals and tasks effectively. In the context of adult ADHD, characteristic features within six executive functioning clusters are outlined below:

## Planning and Organisation

Planning and Organisation: Planning involves setting goals and devising strategies to achieve them, while organisation involves arranging tasks and resources in an orderly manner. Adults with ADHD often struggle with these aspects, leading to disorganised workspaces, missed deadlines, and difficulties in time management.

## Focusing

Focusing refers to the ability to transition smoothly between tasks or mental sets. Adults with ADHD may find it challenging to shift their attention and adapt to changes, leading to problems completing tasks that require flexibility and shifting focus. Sustaining focus and resisting distraction can be problematic, especially when reading.

## **Inhibitory Control**

Inhibitory Control involves the ability to control impulsive behaviours, resist distractions, and delay immediate gratification. Adults with ADHD often struggle with inhibitory control, leading to impulsive actions, difficulty staying focused on tasks, and challenges resisting temptations. They can also experience problems with motivation, sustained effort, and persistence.

#### **Emotional Control**

Emotional Control: Executive functioning includes managing emotions and responding appropriately to different situations. Individuals with ADHD might experience emotional dysregulation, leading to mood swings, irritability, and difficulty managing frustration or stress.

## **Working Memory**

Working Memory is the capacity to temporarily hold and manipulate information for short periods while performing cognitive tasks. Adults with ADHD may have difficulties with working memory, which can make it hard to follow multi-step instructions, organise thoughts, and remember important details.

## Metacognition and Self-Monitoring

Metacognition and Self-Monitoring: Metacognition refers to the ability to reflect on one's thoughts and cognitive processes. Self-monitoring involves evaluating one's performance and adjusting behaviour accordingly. People with ADHD might struggle with metacognitive skills, leading to self-awareness, self-evaluation, and self-directed learning challenges.

Executive dysfunction can manifest differently in individuals with ADHD. Some may have more pronounced difficulties in certain areas. It's important to note that ADHD involves symptoms of inattention, hyperactivity, and impulsivity, not just executive functioning. Treatment approaches for adult ADHD may include behavioural strategies, psychoeducation, medication, and counselling to improve executive functioning skills and overall quality of life.

#### More Information

Watching the <u>ADHD Brain 3 - Minute</u> video <u>2-Minute Neuroscience: ADHD</u> video. These videos provide an overview of experiencing ADHD and can enhance understanding of the condition.

## How does having ADHD influence a student's college experience?

- Difficulties in sustaining attention, following lectures and discussions problematic.
- Easily distracted by unrelated thoughts, especially in calm or quiet surroundings.
- Poor short-term memory results in difficulty retaining information and can lead to difficulty, or inability, with notetaking during classes/lectures.
- Difficulty in holding a train of thought when they are interrupted.
- Avoids tasks with sustained mental effort.
- Forgetting about daily activities such as attending classes/lectures, leading to poor attendance.
- Difficulty keeping up with lectures that use large quantities of written/visual content.
- Students with ADHD often have trouble with organisation skills and have a poor sense of time, leading to ineffective time or workload management (not meeting deadlines).
- Failure to follow through on academic tasks/instruction and meet deadlines.
- Difficulties expressing knowledge verbally or in writing without time to plan/structure ideas.
- Often, students with ADHD find imposing order on their ideas challenging.
- Reduced reading comprehension skills affecting performance in class and exams due to concentration difficulties.
- Difficulties getting to unfamiliar places on time.
- Loses things needed for important activities.

#### Other differences

- Students who have been recently diagnosed with ADHD may experience emotional difficulties and /or difficulties with practical tasks. Furthermore, this can affect a student's self-esteem and confidence.
- Some students may experience intense bouts of extreme sadness or emotional/physical pain when they think they have been rejected or criticised more than a neurotypical student.
- Difficulties following a conversation that may lead to behaviour deemed inappropriate, such as interrupting others and talking during lectures.

- Fidgeting/Movement is part of ADHD, but it helps concentration.
- Irregular sleeping patterns, forgetting to eat, failing to maintain personal hygiene, and missing medication can lead to a crisis point.
- Management of money is challenging, and bills are often left unpaid, leading to debt, stress, and frustration.

## Strengths

- Hyperactivity as having boundless energy and a fun-loving/charismatic personality.
- The ability to hyper-focus on one thing at a time is great for getting the job done and can achieve reliable results.
- Adventurous willing to explore and take risks.
- Daydreaming and having a fantastic imagination often inquisitive and innovative.
- Being motivated by short-term deadlines working in sprints rather than marathons.
- Some talk a lot to make themselves or others feel at ease. Being friendly and chatting with lots of people is a positive trait.
- Resourceful and good in a crisis.

## Famous People with ADHD

- The success of many people with ADHD is due largely in part to their ADHD! Despite his schoolteachers' berating his 'inability to sit still' when he was younger, Michael Phelps, a successful Olympian swimmer, has 28 medals and 5 world records. Equally, musician Will.I.am cites his ADHD as "a gift, not a flaw" and says it helps his creativity flourish. Dav Pilkey, author and cartoonist well-known for his Dog Man and Captain Underpants series, calls it Attention Deficit Hyperactivity Delightfulness, and he credits his ADHD for his success. One of the cleverest men ever, Stephen Hawking, had ADHD.
- Explore the remarkable journey of understanding ADHD with Unpacking ADHD's insightful timeline. View the timeline to see howfar we have come.
- To better understand adult ADHD, watch the following YouTube videos <u>Adult</u> ADHD | Inattentive and Adult ADHD Hyperactive Impulsive.

## Routes to identification:

Appropriately qualified Consultant Psychiatrist or Psychologist or Neurologist or Paediatrician who is a member of their professional or regulatory body.

## Useful links and resources

- How to ADHD YouTube
- ADHD Ireland
- Adult ADHD HSE/ADHD Ireland App
- ADHD in Adults HSE National Clinical Programme
- Unpacking ADHD
- <u>Attitude</u>
- ADHD in the Workplace / ahead WAMinar

## Technology to assist students with ADHD in their learning.

Navigating the challenges of ADHD in an academic setting can be daunting, but engaging with the right tools and strategies can make a significant difference. Students with ADHD can benefit from digital tools to enhance focus, productivity, and organisation. This guide explores a range of assistive technologies and techniques tailored to help students with ADHD manage their time, stay organised, and improve their reading and writing skills.

## Time management and Organisation skills.

To develop self-directed skills, it is useful for learners who experience ADHD. to set goals and to know how to reward themselves when these goals are achieved.

#### Microsoft To-Do App - Time Management



Microsoft To Do Microsoft To-Do Management app is a simple and intelligent to-do list that helps you manage all your tasks in one place. You can work through your tasks for the day in My Day and create any number of additional lists to organise your study, work, groceries, school drops, movies to watch—you get the idea! The Microsoft To-Do app is accessible in your Microsoft 365 college email account, and it syncs across iPhone, Android, Windows, and the web.

<u>Access information and download Microsoft To-Do</u>. Follow Kevin Startvert's <u>step-by-step tutorial</u> on YouTube to see how to use Microsoft To-Do to manage tasks on the go.

## The Pomodoro Technique– Time Management

<u>Ahead</u>. The Pomodoro technique lets students divide their work into achievable intervals with short breaks, helping them stay focused and empowered.

When you are ready to try the Pomodoro Technique, start with a Pomodoro timer.

## Eliminate distractions from social media while studying.

#### Flora Green Focus

Flora Green Focus is a gamified Pomodoro timer designed to help students stay focused and productive. The app encourages users to put down their phones and blocks distracting apps, such as Instagram, for a limited period. As users start a study session, a virtual tree begins to grow. However, the virtual tree dies if they leave the app to use their phones. Flora is a great motivator for staying on track and building positive habits. Flora offers an opt-in price to help organisations like Tree for Future and Eden Reforestation Projects plant trees in real life. Improve healthy study habits and help save the planet - It is a win-win!

Flora Green Focus App can be downloaded from the iOS App Store and Google Play; visit Flora Green Focus for more information.

## Mind mapping applications – by hand and digital software.

To begin mind mapping by hand or by software, it is essential to first grasp the theory behind it. Check out <u>Mindmap's Unleased Practical Induction Guidelines</u>. Mind mapping is a personalised learning technique, so it is crucial to have a good understanding of the fundamentals.

#### **Xmind**

Xmind is a full-featured mind-mapping and brainstorming app. It now offers two plans for users: the Xmind Free Plan and the Xmind Pro Plan. Below are the differences between the Free Plan and the Pro Plan in Android Xmind. In the Free Plan, users can insert notes, markers, stickers, hyperlinks, labels, and images into the topics. They can also access downloads from Xmind.

Currently, there is no time restriction for using the free version, and you can get access to most of the features of Xmind for Desktop. However, keep in mind that the free version is available for personal use as all the exported files will have a watermark of Xmind trial mode. Access XMind templates, tutorials, and training from Biggerplate.

#### MindMeister

MindMeister is an easy-to-use mind-mapping tool. Loads of different templates and images to help visualise your plan. If you want to learn how to set up a free account, check out the MindMeister tutorial Step-by-Step Beginners Guide 2023, available on

YouTube. This tutorial, presented by <u>Sharon's Tutorials</u>, <u>provides an excellent overview</u> of the features of the free version of MindMeister.

MindMeister offers a Basic free plan without time limitations. You can work on a maximum of 3 mind maps. If you delete one mind map, you can create another one. If you like the software, an educational plan on a subscription basis costs €3 monthly. You can check out the MindMeister tutorial playlist for more in-depth product functionalities.

For further Mind Mapping resources, search the 'Assistive Technology / Digital Skills Workshops' section on Moodle and scroll down to find the How to Mind Map section for mind mapping resources/guides.

## Technology for Reading (Text to Speech)

## Text-to-Speech

Text-to-speech technology is not new, but it is not as widely known or used as it should be. A "text-to-speech" program, or "text reader," on your computer or tablet can read text from a document or web page to you using a computer voice. This technology can read Word documents, PDFs, web pages, emails, and more. Many applications provide text-to-speech and built-in functionality across devices. The main types of assistive technology (AT) that students may use are explained below.

#### How to access Immersive Reader in Microsoft 365



Step 1

Sign in to your Microsoft 365 college account email (student number@carlowcollege.ie) Step 2

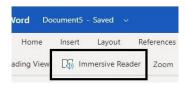
Open a Microsoft Office Word document

Step 3

Click the 'View tab' at the top of the Word document

Step 4

Click "Immersive Reader"



#### Immersive Reader (IR)

When you sign in with your Microsoft 365 college account email (student number@carlowcollege.ie), you have access to a helpful text-to-speech (TTS) reading tool called Immersive Reader (IR) in Word online. This tool allows you to have Word online and webpages read aloud to you, adjust text size, change the background colour for easier reading, and even translate information.

Auditory and visual senses can improve memory retention and make proofreading assignments easier. Best of all, this tool is entirely free to use. IR is also available in the Edge browser. Check out AHEAD AT Hive - Demo Immersive Reader in Action. Discover more about IR on Use Immersive Reader in Word by Microsoft.

#### Natural Reader 16

Natural Reader 16 is a free screen reader software with free and paid subscriptions, a text-to-speech technology that reads text aloud. It is available as a web version and Chrome browser extension (both require an Internet connection). Natural Reader can read highlighted text from Microsoft Word and PDFs, including digital exam papers, webpages, and emails. For more information or to download the Natural Reader free software, visit the Natural Reader Introduction video

#### Microsoft Lens (formerly Microsoft Office Lens)

Microsoft Lens is a free scanning app. It works on iPad, iPhone, Android, and Windows devices. Students can capture and crop a picture of a whiteboard, blackboard, or text. They can read the scanned text aloud using the features within the Microsoft Lends Reader Tool (uses Optical Character Recognition (OCR)) to manipulate the text or words to suit their learning needs. Learners can choose to convert images to Word (.docx), PowerPoint (.pptx) or PDF (.pdf) files and save them to OneDrive or their local device. See how to use Office Lens on a mobile device iOS or Android

#### Acrobat Reader DC free PDF viewer



Acrobat Reader DC is a free PDF viewer. It is a stand-alone application for opening, viewing, signing, printing, annotating, searching, and sharing PDF files. Adobe Reader can be downloaded here. Please be advised not to check the box for a McAfee security scan or anything else (our IT Department has advised against those). The link will download the free version, though it has ads for premium features. How to have a PDF file read aloud within Acrobat Reader DCAdobe Reader read aloud feature will enable you to have your files read aloud. To find out how to listen to PDF files being read aloud visit Conveniently hear PDF files read aloud.

#### LookOut - Android



<u>LookOut</u> is an Assisted Vision FREE App on Google Play for Android (is Android's answer to <u>Apple's Seeing Al</u> (Artificial Intelligence). Lookout uses computer vision to assist people with low vision or blindness in identifying objects and text using the camera and sensors on their Android devices. It can recognise and speak text and identify currency notes, making everyday tasks like sorting mail and putting away groceries faster and easier.

The following <u>YouTube video from Vision Forward</u> will lead you through the primary functions of the Lookout AI app.

#### Seeing AI is for iPhone



Seeing AI is a free app that narrates the world around you and was designed with and for the blind and low vision community.

- Seeing AI provides tools to assist with a variety of daily tasks for example:
- Short Text Speaks text as soon as it appears in front of the camera.
- Documents Provides audio guidance to capture a printed page, and recognizes the text, along with its original formatting.
- Products Scans barcodes, using audio beeps to guide you; hear the name, and package information when available.
- People Saves people's faces so you can recognize them, and get an estimate of their age, gender, and expression.
- Currency Recognises currency notes.

The above is not a conclusive list of Seeing AI features and it continues to evolve. Explore <u>a tutorial on Seeking AI on their YouTube playlist</u>. For more information, <u>visit SeeingAI.com</u>

## **Technology for Writing**

#### Speech-to-Text / Dictate in Microsoft 365



Speech-to-text technology, also known as dictation or voice recognition, converts spoken language into written text. It allows learners to speak naturally; the software or dictate feature interprets their thoughts and transcribes them into text on their screen. It is good to know Dictate is accessible to all students in Word Online in Microsoft 365.

Dictate in Microsoft 365 Word online - Typing is one way to write in a Word document, but the dictate feature can also type your voice. For People who may have slow typing speed, issues with spelling dictate is an alternative way to approach essay writing. Select the 'Dictate' option in Word online and speak your thoughts to have them typed. Explore how to switch on the <u>Dictation Tool in Microsoft 365 Word online</u> from the AT Hive hub hosted by AHEAD.

Gaining confidence in using speech-to-text technology can take time. Here are some tips to consider when dictating your thoughts:

- Start by using speech-to-text on topics you are familiar with or comfortable discussing. This can reduce the pressure and make the process feel more natural.
- Practice regularly: like any skill, practice is essential. The more
  you use speech-to-text, the more confident you will become. Try
  dictating notes, emails, or text messages regularly.
- Speak at a steady pace and in complete sentences. Avoid speaking too fast or slow, which can affect recognition accuracy.

## A guide for writing using dictate / speech recognition:

- Think about what you want to say.
- Say it out loud some students prefer not to look at the screen as they dictate.
- Check the text for errors.
- Fix errors you can use a mix of typing and dictating.
- Do not hesitate to make corrections if the system misinterprets your words.
- Use punctuation and formatting commands: Learn how to use voice commands for punctuation (for example, 'comma',' full-stop', and 'question mark') and formatting (for example, 'new paragraph', ' new line'). This can help make your transcriptions more accurate and readable.
- Use a quiet environment: minimise background noise when using speech-to-text to ensure the system can capture your voice accurately.
- Learn the specific commands and features: familiarise yourself with the speech-to-text application or software you use. Many platforms have specific voice commands and features that can enhance your experience.
- Gradually increase complexity: as you gain confidence, start dictating longer and more complex pieces of text. This will challenge your skills and help you improve.
- Review and edit: review the text for errors and make necessary edits after transcribing.
- Be patient and persistent. Adjusting and improving your skills takes time, like any new technology. Stay patient and persistent, and you will notice progress over time.

#### Boost your Word skill with video and text resources for Dictate in Word

- View a quick overview <u>Learn more about using Dictate with Word online</u> from Dyslexia Ireland.
- How to use Dictation in Microsoft Word for the Web with Microsoft 365's video.
- Quick guide resource to <u>Dictate in Microsoft 365</u>, <u>Dictate in</u>
   Windows 10 and Windows Speech Recognition from Call Scotland

## Spelling and grammar in Word



Word in Microsoft 365 can help improve your documents by checking and highlighting spelling and grammar errors and will prompt you to review and make necessary corrections. Additionally, it may suggest ways to improve the clarity of your writing by using more concise language. View the following Microsoft Support video on Spelling and grammar in Word.

#### **Microsoft Editor**



Microsoft Editor uses Artificial Intelligence (AI) to recognize and offer corrections for spelling and grammar mistakes in Office 365, (available via Carlow College Office 365), for example, Word, Outlook and Word Online. The key features of Microsoft Editor are Spelling checker, Grammar checker and refinements such as clarity, conciseness, and punctuation.

For more information about Editor in Word for Microsoft 365, see Check grammar, spelling, and more in Word.

The Microsoft Editor free browser extensions can be downloaded <u>for Edge</u> and <u>for Chrome</u>. It is free to use for spelling and grammar on a range of web applications such as Gmail and social media.

## LightKey



Lightkey's AI-Powered spelling correction technology works for users by learning from their typing habits and offering spelling corrections based on their unique vocabulary.

<u>This LightKey video</u> gives an overview of LightKey, a free AI-powered text prediction software for Windows. <u>How to type faster using Lightkey's AI-Powered writing assistant for Windows</u> will show 5 different ways to speed up your typing and be more productive using Lightkey's text prediction software for Windows.

- 1. Personalized Predictions
- 2. Real-time Corrections.
- 3. Smart Greetings in Outlook.
- 4. Punctuations and Math Expressions.
- 5. Sound Assistance.

A free version of LightKey is available for download on this <u>website</u>, and is limited to 1000 keystrokes per month. You can upgrade to the full version by visiting their <u>website</u> for unlimited use. They have useful guides and tutorials on their website, which you can access here.

#### Glean



Glean - a notetaking tool (subscription-based). Notetaking can be challenging for autistic students as they struggle to switch between tasks and have difficulty deciding where to direct attention. This may lead to a high cognitive overload and the risk of not processing essential information during a lecture. Glean will enable a student to focus on processing the information for understanding and remove the need to listen and write simultaneously. Glean enables students to use their laptop or mobile device to use Glean's key features to personalise their lecture notes, seminars and other study sessions delivered on campus and remotely over the internet. Glean is a subscription-based tool for students registered with ARO (Academic Resource Office) who have been granted this support at their Needs Assessment.

Watch this 3-minute explainer video to see how Glean can help you take better notes.

Try using one or two Digital Assistive Technologies every semester to improve your academic abilities. Do not overwhelm yourself with too many features at once, but the benefits are worth the time and effort.

## **Tips for Organisation and Concentration**

Incorporating pen-and-paper techniques along with AT tools is perfectly fine for developing your study skills.

Recording your tasks in a planner, to-do list, online diary, or dated paper diary can make staying organised easier.

- Create a plan for your semester's academic workload and break tasks into manageable steps.
  - Develop a weekly plan: every weekend, make a realistic plan for the week ahead.
    - Mark short-term tasks in your diary, assignment due dates, in-class assessment dates, work commitments, and social activities.
  - Develop a daily plan: It is helpful to create a daily plan before going to bed each night. Set realistic goals to ensure your plan is achievable. This way, you'll be more likely to complete your tasks, which will increase your confidence and motivation.
  - Set specific goals: Before studying, set realistic and specific goals to maintain focus and motivation. Knowing the number of pages or problems to complete in a set time helps accomplish feasible objectives.
  - o Reward yourself when you achieve your goals.
  - To avoid missing appointments, make a reminder list. Use your calendar/diary or planner, or set an alarm on your phone. This will free up your mind from worrying about details.
- It's a good idea to have a physical copy of your timetable and schedule of assessments on hand for quick and easy reference. Consider keeping one on your bedroom door and another in your college bag.

#### No deadline should come as a surprise.

- If you need something to occupy your hands during a lecture, consider bringing a small squeezy ball or fidget spinner instead of using screen time.
- Sit near people who will not distract or be annoying is also a good idea, as is avoiding the window.
- If you have trouble understanding instructions, do not hesitate to ask your lecturer to break them down into manageable steps, preferably towards the end of the lecture.

Engaging with one or two assistive technologies every semester can transform the academic experience for students with ADHD. It turns potential obstacles into opportunities for success. It's essential not to take on too much, as this can cause overwhelm.

## **Summary**

ADHD is a complex, lifelong neurodevelopmental condition that affects individuals in unique ways. While it poses challenges in attention, organisation, emotional regulation, and executive functioning, it also offers strengths like creativity, resourcefulness, and hyper-focus. The impact of ADHD can vary with age, life circumstances, and the level of support provided.

For students and adults alike, tailored strategies, structured environments, and accessible resources can help reduce difficulties while harnessing their strengths. By understanding and addressing ADHD holistically, learners can navigate their challenges and thrive both academically and personally, demonstrating that ADHD is not just a limitation but can also be a source of remarkable potential.

Using apps like Microsoft To-Do and Flora Green Focus to adopt techniques like the Pomodoro method, individuals can cultivate productive habits while staying motivated. Tools such as text-to-speech and speech-to-text technologies, mind-mapping applications, and writing assistants empower students to overcome learning obstacles and unlock their full potential.

Importantly, success comes not from trying every tool at once but from gradually integrating one or two resources each academic year. Students can develop essential life skills and build confidence in their abilities. ADHD, while challenging, is not solely a limitation—it brings with it unique strengths like creativity and hyper-focus. With structured support and understanding, individuals with ADHD can thrive academically and in life, turning challenges into opportunities for growth and achievement.

Navigating the challenges of ADHD in academic and workplace settings can be made significantly easier with the right tools, strategies, and mindset. This guide has highlighted various assistive technologies, practical techniques, and organisational tips tailored to support students with ADHD in managing time, enhancing focus, and improving their academic and personal performance.