



# 5 reasons why **e-learning** is an essential tool *alongside AT training* for **learners** using **assistive** **technology** in higher education

# Contents



Intro 02

The 5 reasons:



1- The iGen wants blended digital learning 03



2- DSA learners need course-long AT support 05



3- iGen learns best with on-demand interactivity 07



4- Digital accessibility supports diverse needs 09



5- Personalised learning helps support mental health 11



Summary and the e-learning checklist 13



Get your free e-learning licence 14



What do DSA needs assessors say? 15



What do DSA learners say? 16



Your notes 17



References Back page

## Intro

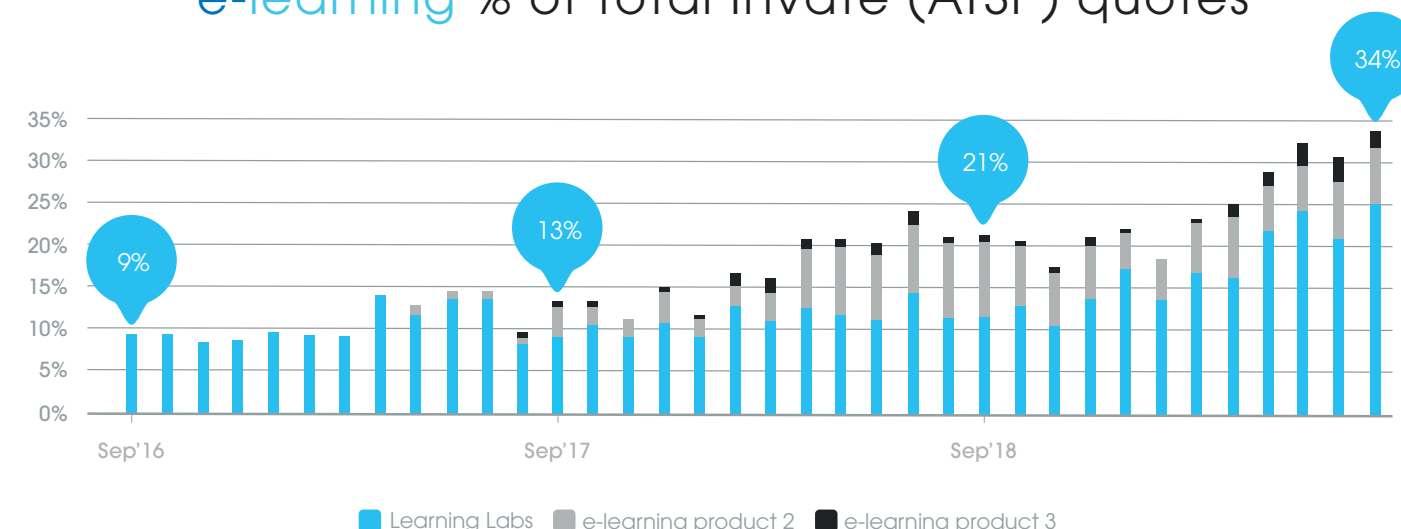
## Why is e-learning essential for all DSA learners?



While e-learning has been established in the sector for over three years, e-learning products are still only recommended for fewer than 30% of DSA learners <sup>[0.1]</sup> (see graph below).

This means that although needs assessors are increasingly recommending e-learning products as an ongoing support tool to AT training, there are still 70% of DSA learners who never receive this support.

e-learning % of total Invate (ATSP) quotes



Neuroscience and market data shows us that e-learning should be an essential requirement in supporting the current digital-savvy generation to achieve their full potential in higher education. Read on for all the facts on why every DSA learner would benefit from an AT e-learning tool.

Before we get started, here's some handy

> A few acronyms we use throughout for ease of reading:

ATSP	AT	ATT	DSA	HE	SpLDs
Assistive Technology Solutions Provider	Assistive Technology	Assistive Technology Training	Disabled Students' Allowance	Higher Education	Specific Learning Difficulties

information about how this paper is formatted...

> We've highlighted key phrases so they are easy to spot:

**Digital benefits**  
**Understanding the neuroscience**

> Key points for your e-learning checklist on page 13.



> If you spot <sup>[0.0]</sup> when reading a sentence, this fact has been referenced on the back cover page.



## Reason 1: The iGen wants

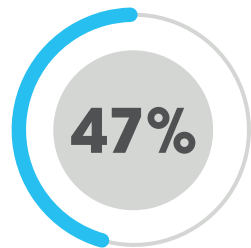
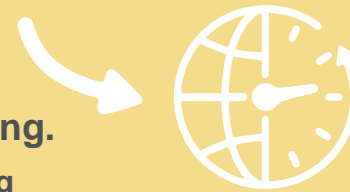
↳ this helps to build

Generation Z, or the iGen, as they are often referred to for their **digital upbringing**, have come to expect digital tools as **part of the fabric of everyday life**.

This is no different when it comes to their learning. For the iGen, learning **isn't limited to just the classroom**; it's something that can take place at **any time and anywhere**.<sup>[1.1]</sup>

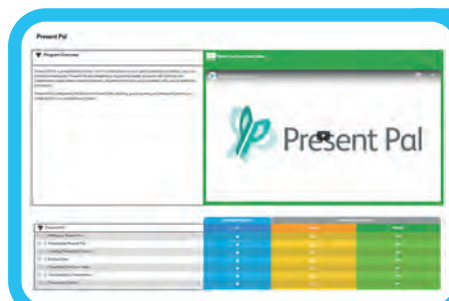
This 'born digital' generation also has a great love of learning.

They are **self-starters**, comfortable with **finding out themselves**, looking **online** and **learning something new** by watching a video. Studies show 47% spend three or more hours a day watching videos on YouTube.<sup>[1.2]</sup>



3+ hours  
a day

However, unlike YouTube, **e-learning** provides a collection of consistent digital content. This meets the needs of the iGen learner as it can take place **any time and anywhere**; it can be designed to be **interactive** and it can also offer a **variety of digital learning formats** ✓.



Learning Labs has **Read, Watch and Do** Labs on every AT feature.



Plus, **e-learning** can also be used as a complementary **tool during needs assessments** and **during AT training**, as well as **for independent learning**. Altogether **e-learning** creates the ultimate **blended learning experience**, which is available throughout a DSA learner's journey.

AT trainers and needs assessors can have their own free Learning Labs accounts.



## blended digital learning

neural scaffolding

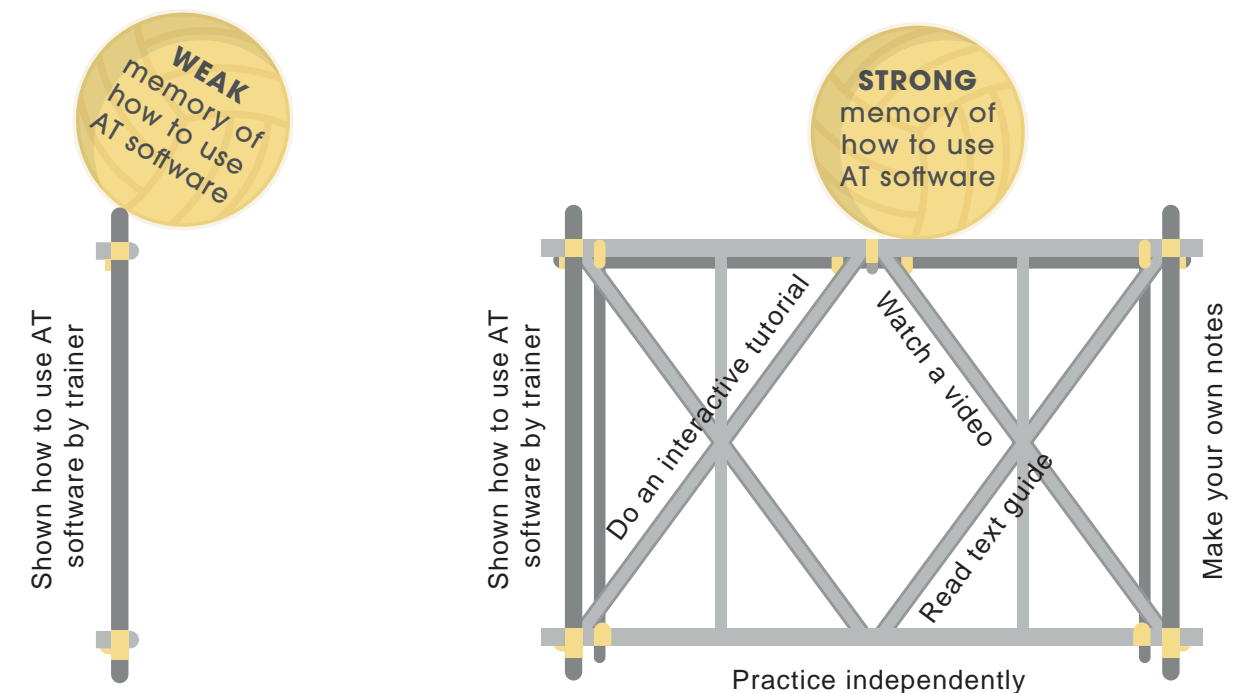
In neuroscience we talk about the brain creating **long-term memories** by building '**neural scaffolding**'<sup>[1.3]</sup> over time. The **blended learning experiences** offered with **e-learning** help to create stronger memories by offering more opportunities to build **scaffolding** around a subject matter.

The iGen is the most innately digital generation to date so, without recommending **e-learning** for DSA students, this generation is missing out on their preferred, and often most effective, method of **blended learning** that can help to build **neural scaffolding** (see diagram below).

One-method learning:  
traditional one-to-one  
AT training only

VS

Blended learning:  
**e-learning** mixed with  
one-to-one training



Without establishing a **variety of connections** to new information, a learner may forget it quickly. Personal connections that draw on emotions and previous experiences will not only help make new information more **memorable**, but also **fuel motivation** to continue to learn.<sup>[1.3]</sup>

# 2

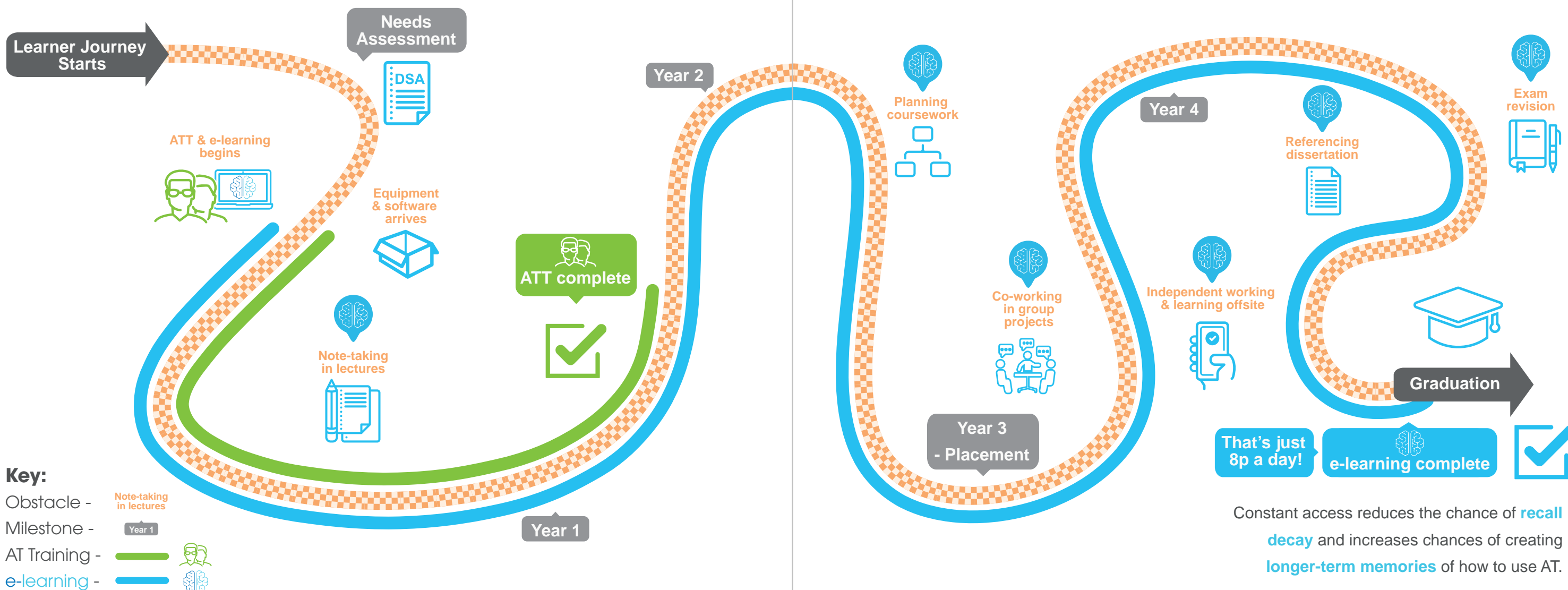
## Reason 2: DSA learners need

→ this helps reduce

Throughout a learner's time in higher education, there are increasing milestones and obstacles to overcome, from **essay writing** to **exam revision** and even **working on placement**.

For DSA learners in HE, many receive assistive technology (AT) and training to support them through these milestones. One-to-one AT training is often **completed** within the **first few months** from receiving AT equipment. The learner then has to recall what they have learned over the course of three, four or five years. If they are not using the AT regularly, this can lead to what is known as '**recall decay**', or what is more commonly known as 'forgetting'.

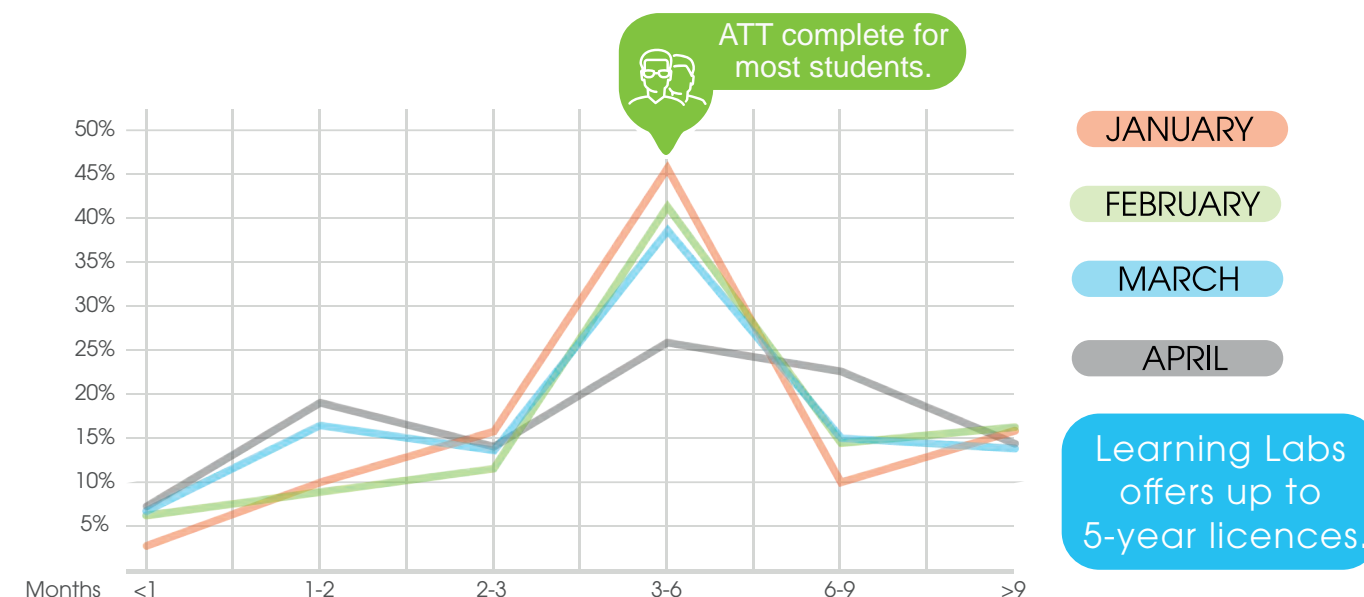
With an **e-learning** portal, the learner has **AT support course-long** ✓. That means, even when the one-to-one AT training programme has been completed, the learner still has **access to digital support for the duration of their studies**, right through to graduation. The cost of this course-long support equates to just **8p per day** for the average **e-learning** tool.



## course-long AT support recall decay



Data from a leading ATSP shows most learners complete their AT training within 3-6 months <sup>[2,1]</sup> (see figure below). This leaves a huge gap between AT training completion and graduation.



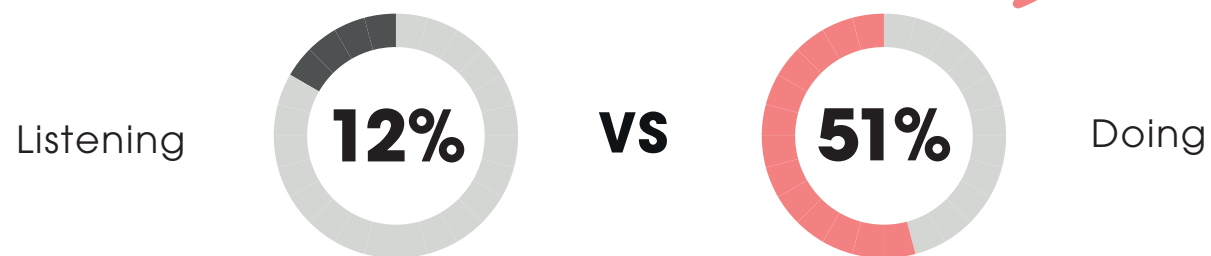


# 3

## Reason 3: iGen learns best with

↳ this offers a kinaesthetic

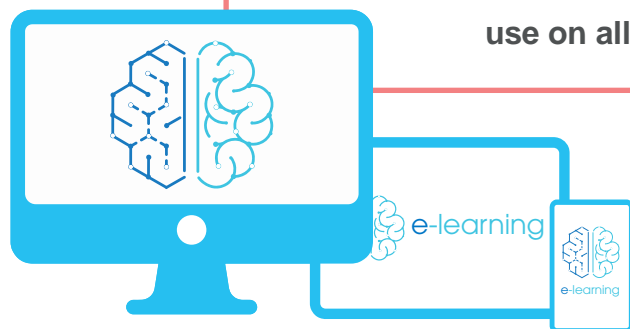
"51% of surveyed students said they learn best by doing, while only 12% said they learn through listening." [3.1]



As digital natives, this generation has high expectations regarding the quality of digital content; it should be **intuitive, visual, interactive, flexible, accessible** and come in **bite-size!**

Use Learning Labs on any device.

These learners also stay connected to multiple digital devices at any one time and are **expert multitaskers**. Built for a 'mobile first' [3.2] generation, **e-learning** has to also incorporate **responsive design** ✓ to allow **use on all devices**.



Their preference for 'snack media', such as SnapChat and Instagram, means **bite-sized micro-learning** is very effective with this generation. Combining this with their consumption of visual media makes short, on-demand, YouTube-like **how-to videos** ideal for **e-learning**.

The iGen also has a preference for **self-learning**. They like to take ownership of their learning, as this is what they are used to. From entering a quick Google search to instant messaging with their friends, **the answer to any question is always found online** and through their own research and **critical thinking**.

## on-demand interactivity

learning experience



However, the most effective form of **e-learning** found with this generation draws on '**kinaesthetic learning**', which is to learn by interacting with, or physically doing, something. Students have stated that **using interactive devices** is important to their learning [3.3]. Interactive learning should therefore **feel intuitive** ✓.

There are over 2,000 interactive Labs on the portal, growing monthly.



It takes just 2 clicks to get into a Lab from login, making it **quick and easy** ✓ to get started.



Therefore, we cannot simply show or tell this generation how to do something; we need to give them the tools to **learn for themselves**, for the most authentic and effective learning outcomes.

The sector's leading **e-learning** platforms are designed to be engaging, with **media-rich interactive learning content** and **accessible styling and features**, offering a **variety of ways to learn**, from downloading text guides that can be annotated to watching a quick video tutorial and, of course, 'doing' (the most effective form of learning for this generation) the **interactive tutorial** ✓.

Read Watch Do



# 4

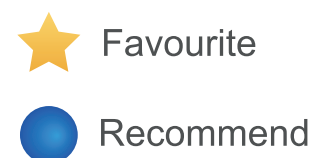
## Reason 4: Digital accessibility

↳ this avoids cognitive overload

Specific Learning Difficulties (SpLDs) are the most commonly disclosed impairment for disabled students [4.1]. The core difficulties associated with SpLDs, such as **processing speed, short-term memory** and **visual or auditory perception**, can all be supported with **e-learning**.

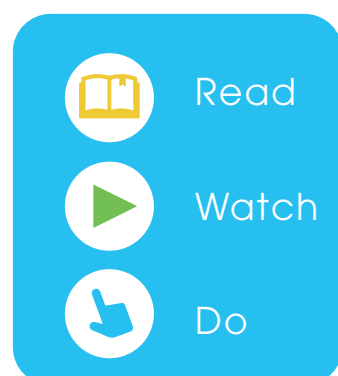
**Weak short-term memory** can be supported by the learner **revising the software** features they find most useful. In leading **e-learning** tools, the learner can mark their 'favourite' ★ tutorials, making them quick and easy to return to in moments when they need a brief reminder.

Learning Labs has a learner 'favourite' button and a trainer 'recommend' button.



An **e-learning** tool can be **used during face-to-face AT training sessions**. With some **e-learning** products, the trainer can even 'recommend' ● specific tutorials for the learner to practice between sessions. The learner can then use their **e-learning** tool to **learn at their own pace**, returning at any time to **revise, repeat and reinforce learning**, something known as '**spaced repetition**' ✓. This is great for learners with a **slow processing speed**. They can also ask questions of their trainer, helping to prepare them for **independent learning** once the training programme has been completed.

To support learners with **visual and auditory perception** difficulties, the best **e-learning** products are **designed with accessibility in mind**. **Non-verbal cues**, such as use of iconography alongside wording, help to provide different mediums for understanding. A variety of ways to learn also helps make the **content more accessible**. From reading text guides to watching videos and doing interactive tutorials, there will always be an option for every learner.



## supports diverse needs

commonly associated with SpLDs



Learning Labs has buttons to 'hide' sections of content to allow focus on the task at hand.

Leading **e-learning** products will offer fully **inclusive accessibility features** ✓ such as the option to **playback text aloud, change colours, font sizes and styles, languages** and more. This helps to **personalise the learning environment** for a learner with **visual perception** difficulties.

Learning Labs has web accessibility software **Recite**™ installed, offering fully inclusive personalisation features - log in and have a go!



By breaking down content into small collections of different features to learn, **e-learning** tools can offer an **environment of micro-learning**. This means that, for learners with SpLDs who can have short attention spans, **e-learning** can take no longer than 2-3 minutes at a time, if they so choose.



Having **expandable and collapsible sections of content** in an **e-learning** platform also allows the learner to concentrate on one area of content at a time and avoids what is known as '**cognitive overload**', or overwhelming the learner with too much information.



Providing a learning environment that is **self-paced, accessible anywhere**, with **short, bite-sized** tutorials that can be **repeated** as many times as necessary, means **e-learning** is an entirely **personalised learning space** for learners.

Learning Labs has a clean & linear style.



## Reason 5: Personalised learning

↳ this helps reduce

### Dropouts & associated issues

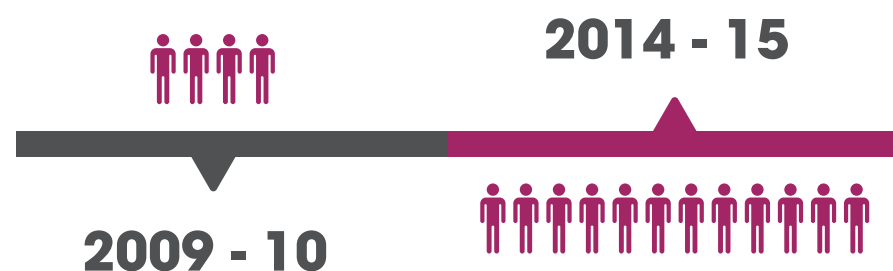
Higher education **dropout rates have continued** to be a cause for concern in recent years <sup>[5.1]</sup> and, at the same time, statistics show a correlation with the **increasing numbers of students with mental health difficulties**.

### Mental health awareness

A record **1,180 students** who experienced mental health problems **left university early** in 2014-15, which was a **310% increase** from 380 in 2009-10. <sup>[5.2]</sup>

### Worry, anxiety & loneliness

A more recent survey with 38,000 UK students found **43% were often or always worried**. Almost nine in ten struggled with anxiety – an **increase of almost 19 percentage points** on 2017 figures, and a **third suffered from loneliness** often or all the time. <sup>[5.3]</sup>



**43%** | Worried

**9/10** | Anxiety

**1/3** | Loneliness

**3% Higher**

In 2016/17 there were **20.5%** of disabled students who declared a **mental health condition**. This was three percentage points higher than the previous year and second only to those declaring SpLDs. <sup>[5.4]</sup>



## helps support mental health

stress on the brain



### Brain Activity



Normal



Under Stress

When the brain is **under stress** this causes the body to go into **fight, flight or freeze mode**, making it difficult to focus on learning and even more **difficult to store information in the memory**.

With **remote access online** the learner can choose to learn from the privacy of their home or preferred place of **comfort, anywhere & any time** ✓.



Learning Labs is cloud-based – log in anywhere with internet.

Labs are no longer than a few minutes each, for quick & easy, bite-size learning.



For someone struggling with stress or anxiety, the **bite-sized** tutorials available in **e-learning** tools mean the learner can **take learning at their own pace**, because accessing learning should be quick and easy. This also **avoids apprehension** over needing to learn large volumes at once. The learner can find out the **specific guidance required in an instant** and avoid anything unnecessary. This makes **e-learning** feel helpful and not hindering the learner's journey in HE.

The DSA is designed to help **remove barriers to learning** and boost attainment. **e-learning** is a particularly suitable recommendation for someone who has challenges with stress, anxiety or depression to support them with **learning on their own terms**.

A personalised **e-learning** experience supports the learner in confidently using their AT to achieve their goals and, ultimately, **avoid unnecessary stress or dropout**.



5 reasons why e-learning is an essential tool for all learners using AT in HE:

- 1 The iGen wants blended digital learning
- 2 DSA learners need course-long AT support
- 3 iGen learns best with on-demand interactivity
- 4 Digital accessibility supports diverse needs
- 5 Personalised learning helps support mental health



The e-learning checklist to consider when recommending an e-learning product for a DSA learner:

- ✓ Does it have a variety of digital learning formats? Page 3
- ✓ Does it have course-long licencing? Page 5
- ✓ Does it have fully inclusive accessibility features? Page 10
- ✓ Does it have responsive design? Page 7
- ✓ Does it feel intuitive to use? Page 8
- ✓ Does it offer high-quality interactive tutorials on all AT features? Page 8
- ✓ Does it allow unlimited repetition of tutorials? Page 9
- ✓ Can it be accessed anywhere, any time? Page 12
- ✓ Is it quick and easy to get into a tutorial? Page 8

Get your own free Learning Labs licence today!

Book Free CPD Training

Call Learning Labs if you are interested in bespoke on-site training on why e-learning benefits DSA learners in HE.

Every course attendee receives a free Learning Labs licence and a CPD certificate.



- Contact us:
-  [www.learninglabs.co](http://www.learninglabs.co)
  -  [info@learninglabs.co](mailto:info@learninglabs.co)
  -  0191 230 6689





## What do **DSA needs assessors** say about e-learning?



100% of needs assessors that responded to our post-event survey said they would recommend e-learning  
– **CPD Revolution Event May 2019, which delivered e-learning training.**



For me, as a DSA Needs Assessor, my top benefit from Learning Labs is that it is available for the whole duration of the student's degree so that they can refer to it even in the later stages, when they may really need to refresh a particular feature because their dissertation is nearing its deadline or a major lab project needs submitting.

I have noticed a surge in students who prefer to log in with their mobile phones and then practice with the AT software on their laptops, so that they have more screen space. With Learning Labs students have accessibility anywhere with an internet connection, no need to install software on your device and indeed being able to log in on any device.

Students often do not realise that the Band 4 – AT Training is an initial investment rather than a long term one so your Learning Labs really are, in my mind, one of the few options to keep the training 'alive' and enable students to refresh skills and features at a later date. I carry out so many funded reviews and end up recommending Learning Labs for this very reason.

– **Leo de Sousa-Webb, DSA Needs Assessor, Exeter Access Centre**



I'm generally now recommending Learning Labs for any student who is recommended software. Top product in my mind.

– **DSA Needs Assessor**



## What do **DSA learners** say about e-learning?



I had a fantastic trainer, Andrew, who took great care in showing me how to use all of my assistive software and hardware. From my first week at uni, we met once a week, for six weeks. This meant my AT training was complete by the end of my first term at university. Andrew showed me Learning Labs in our last session as a source of ongoing support, as we wouldn't be meeting again.

It wouldn't be possible for anyone to remember everything you are taught in training – especially if you didn't need to start putting it into practice until a while later.

I am now in my third year, and it's been three years since my training and I still have a need for my assistive software. However, when you don't use it every day you aren't getting regular practice of how to use the different features.

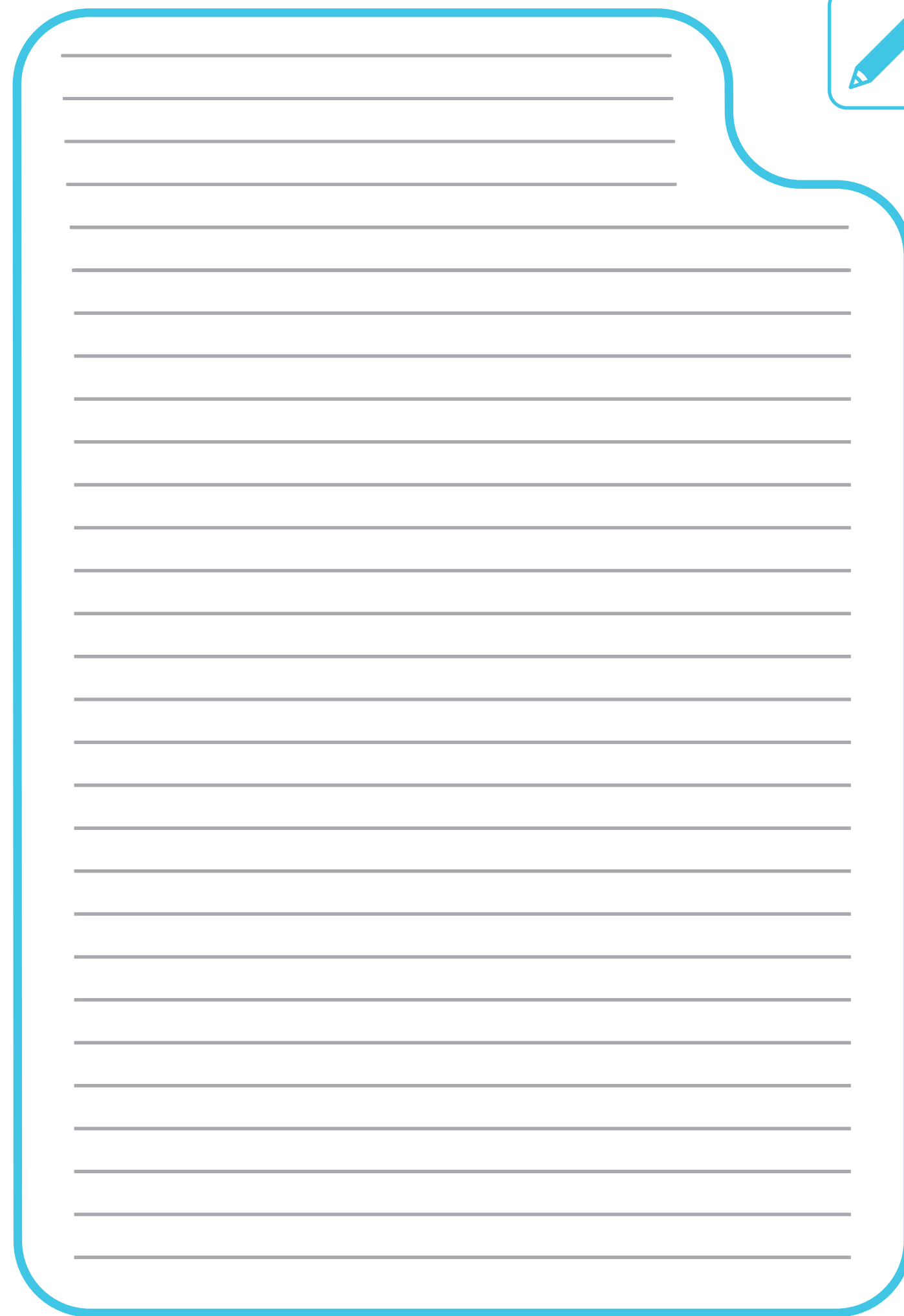
Learning Labs is really useful for reminding you how to use your software. For instance, Dragon is one of my favourite programmes. I use it regularly to take brief notes and I have it in two languages as I am studying Spanish. I often need to refer to Learning Labs to double check how to use the different features in English.

I also received a recording device as part of my DSA. This is really useful, but it is also quite fiddly to work. I went on to Learning Labs, accessed the 'hardware' Lab and was able to learn how to set it up again in a few minutes.

My trainer Andrew was great at teaching me how to use my software and hardware, and Learning Labs has been like the interactive textbook I can refer back to time and time again, for the duration of my time at uni.

– **Connor J Marston, studying at the School of Languages, Cultures & Societies at University of Leeds**



[illegible]

# AT training without ongoing support is like a phone without a charger.

## References:

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