

Enhancing staff support for learners with disabilities

A guide to what different roles in an organisation can do to support disabled learners.

Training for all staff should include more than just disability awareness. Inclusive practice is good practice - it reduces barriers for disabled learners but also provides positive benefits for all other learners.

Providing training and ongoing support for teaching staff will enable them to become more confident in using technology to enhance and enrich their practice.

If the technology is deployed across the organisation, and there is a commitment to promote its use, then there needs to be staff training as part of the induction process. We also recommend tutorials be made available so that people can access them at a time and situation that is convenient for them.

This guide looks at specific areas to develop for the different roles in an organisation. We also explore what you can do to support disabled learners, and who to work with to improve that support. We offer training and consultancy in all these areas – speak to your account manager for more information.

You can also find information on specific disabilities and how technology can support those needs in our guide on 'Meeting the requirements of learners with special educational needs.'

Disability and student support staff

Why this role is important

Personal support for learners may include assessments, working one-to-one in a support role, supporting small groups on study skills and troubleshooting assistive technology. Support staff also promote good accessibility practice to other roles in the organisation and shape cross organisational policies, as part of the quality assurance framework, to maximise benefits and minimise barriers.

A good disability support department will have an impact on:



- Specific gains in independence and achievement for disabled learners
- Generic benefits for the whole organisation (accessible practice has benefits for learners beyond the target group).

What you can do

Look mainstream

Many learners with disabilities don't want to stand out or use different tools from everybody else. Promoting the benefits of assistive tools to all staff and learners is a way of reducing the stigma and encouraging uptake.

Tools like text-to-speech, mind mapping and word prediction should be available across the entire network. You may not have the budgets for high-quality commercial versions, however free and open source versions can fill any gaps.

Make sure disabled learners are aware of:

- Inbuilt accessibility in Microsoft Word tools
- Inbuilt accessibility tools in Mac OS
- Inbuilt accessibility in your organisation's web browser (ie plug-ins for text-to-speech for example Selection Reader)
- Accessibility in mobile devices ie, apps, inbuilt zoom.

Look upstream

You may deal with problems that are the consequence of choices made by others. For example, scanning textbooks for visually impaired or dyslexic learners may be an unnecessary problem created because:

- The library has no e-book subscription or the e-book platform is inaccessible
- The tutor uses a different textbook from the one on the e-book platform
- The tutor chose a textbook from a supplier with a poor reputation for disability responsiveness.

Minimise this by working with library managers, academic staff and senior managers to develop an e-resources policy. The free RNIB Bookshare service also provides accessible learning materials for those who have difficulty reading standard print.

Be open and informed

Keep yourself informed about educational technologies - you can help steer your organisation's investments to maximise benefits and minimise barriers.



- Recognise that the virtual learning environment (VLE), the whiteboard and mobile devices may be important assistive technologies
- Encourage learners to share their strategies with you and with one another
- Encourage learners to explore free tools
- Take advantage of regional fora
- Join mailing lists like some of the JiscMail disability lists (eg, DisForum, Assistive Technology or Dyslexia).

Communicate

The ultimate goal is to minimise barriers and maximise independence for all learners. Think carefully about how your organisation promotes accessibility services and ensure any documentation is accessible.

Working with others

In many organisations, it is easy to develop a silo approach. A positive proactive model involves close working with:

- Senior management to promote accessibility in procurement decisions
- IT staff to maximise accessibility on the VLE and the availability of tools on the network
- Library staff to make the most of e-book availability and accessibility
- Marketing staff to ensure your marketing materials and prospectus are appropriately accessible
- Academic staff to advise on good practice (for example creating accessible documents or optimising the accessibility of practicals and field courses).

IT and network managers

Why this role is important

IT and network managers influence a number of areas which impact on the learner experience. These include:

- The accessibility and usability of learning platforms
- Available web browsers and whether there are accessibility plug-ins, or they can be installed
- The availability of assistive technology software

They need to balance potentially conflicting priorities. Learners should ideally get maximum opportunity to personalise their settings and work with assistive



software tools, however, there is an impact on security risks. The ideal is to provide the maximum user flexibility commensurate with robust security.

Accessibility must be embedded in quality improvement processes to avoid expensive mistakes. Disabled learners have a right to information in an accessible format under the Equality Act 2010 - see the official guidance on making your service accessible.

What you can do

Be proactive in developing and sharing expertise

- Develop your own accessibility expertise attend appropriate training courses, conduct user testing of your systems with disabled learners or ideally, do both
- Work with learning support staff to find out how you can address the barriers that learners face together

Embed accessibility in procurement and development processes

Accessibility should be specified in the procurement or development criteria for all organisational systems. Don't rely on statements of compliance but ask for accessibility features to be demonstrated. For example, can colours be changed? Does the system work with text to speech or screenreader software?

The list below looks at eight key things to look for before you commit to purchasing or licensing software tools or a software platform.

Some software tools are much more accessible than others so if yours fails on many of these points either ask for a discount (to budget for additional support requirements) or go elsewhere.

Font size and reflow

Colours

Keyboard

Navigation

Text to speech

Images, graphics and multimedia

Assistive technology



Maximise the availability of inbuilt accessibility features

Many everyday tools have inbuilt accessibility. Ensure that:

- Inbuilt accessibility features in Windows are available for learners to use
- The default Windows voice is as high quality as possible install an appropriate alternative if necessary
- The speak function in Microsoft Office 2010 (and onwards) is available in the quick access toolbar

Maximise the availability of accessibility tools and plug-ins

Free and open source tools can plug gaps and ensure support for learners wherever they are on your site. Plugins are also available for most web browsers - examples include text to speech, colour/contrast changing and speed reading, which offer instant support for learners with print impairments. Find out more about accessibility plugins for browsers.

Make it easy for tutors to create accessible content

Consider empowering staff to create accessible content. Many commercial content creation tools output to formats with limited accessibility so explore open-source as well as commercial tools. Xerte Online Toolkits allow non-technical staff to create interactive learning resources with high native accessibility.

Seek and respond to feedback on corporate systems

Small things can make a big difference to accessibility. The layout of the page template for the VLE will impact directly on the number of actions a non-mouse user (eg a blind or motor impaired learner) has to perform. The way stylesheets are set up will influence how easily the learner can change colours, font sizes etc.

Ask disabled (and other) users to rate your systems against a range of plain English accessibility features like, 'How easily can you change the font type or size?' and 'How easily can you navigate around the site?'

Systems that can be responsive to assistive technologies or learner needs are good for disabled learners but they are also good for everyone else. Accessible systems tend to be simpler to use and work better on a wider range of devices, so investments in accessibility can have far-reaching benefits.

Working with others



Key stakeholders include the learners themselves and disability specialists in your organisation. Many organisations have a dedicated assistive technology specialist as some tools like screenreaders, voice recognition and switch access can require specialist knowledge to integrate well with wider systems.

Working with library staff is important in most FE and HE organisations as accessible library management systems, e-book platforms and specialist hardware (scanners) or software (like text to speech) are critical for learner independence.

Discussions with marketing staff can help negotiate the balance between corporate look and feel and personalisation opportunities.

Assess how you can support tutor creativity:

- Does wireless infrastructure support adoption of elearning across the site(s)?
- Can you support increased use of multimedia if tutors start to embed audio and video into their teaching?
- Are your e-assessment tools accessible?
- How can you work with disability support staff to ensure that plain English
 accessibility guides exist for all of the key systems that staff or learners are
 likely to use?

Learning technologists

Why this role is important

Learning technologists influence the day-to-day learner experience. While the role varies between organisations, it generally provides the bridge between technology and teaching and learning.

The role is responsible for the design and implementation of digital resources. There can be a fuzzy boundary between IT support and learning technologists as the IT team also have a responsibility to provide pedagogically informed solutions.

The following list gives an indication of the areas that a learning technologist and IT support can influence within an organisation:

- The choice of content creation tools available to teaching staff
- The availability and accessibility of bespoke learning resources
- The production of high-quality media to support teaching and learning
- Signposting to open educational resources (for example copyright cleared media) to provide alternative resources
- · Audio and video or existing high-quality online content



- Promotion of subscription-based digital resources (for example e-book collections)
- Signposting of (and training in) digital tools ranging from apps to web services
- The design, navigation and functionality of the website
- The provision of suitable IT spaces and peripherals
- The accessibility and usability of learning platforms
- The default view, features and functionality available in Microsoft Office (or equivalent)
- The quality of the default text-to-speech voice on the operating system
- Which web browsers are available and whether accessibility plug-ins are already available, or can be installed
- Training opportunities for inclusive e-learning
- The mainstream availability of assistive technology and productivity tools
- Support for assistive technology software and hardware.

In some organisations, learning technologists produce bespoke high-quality content yet in others the task is more about building digital capability amongst the staff. We strongly support the latter as building digital capability helps to create a culture where e-learning is a core teaching skill, rather than a specialist role for others.

What you can do

Empower, don't disempower

Ultimately, a learning technologist will have done a good job if e-learning becomes embedded across the organisation and adds significant value to teaching and learning. The things that make a difference to the learner engagement don't need to be complicated. The aim should be, wherever possible, to find the easiest solutions that tutors can implement themselves to grow their own skills, confidence and expertise.

Check your practice reflects good accessibility awareness

Accessibility is as much a core competency for learning technologists as any other legal requirements such as copyright observance. Organisations have an anticipatory duty to provide accessible materials before the need arises.

Accessibility awareness should be demonstrable in practical ways:

- Use tools that support colour change, text-to-speech or keyboard-only access. You can check the accessibility of many online tools and services using the web2access website
- Basic practices should include image descriptions, captions or key point summaries of videos, transcripts or podcasts



- Training sessions on content creation should demonstrate accessibility good practices and why they benefit a range of people
- Raise awareness that improved accessibility is not an additional workload but a better design. Often the more accessible solution runs more smoothly for all users.

Advocate for disabled learners

Learning technologists occupy an important strategic ground between the IT teams and the end users. IT and network managers are often very risk averse in terms of networks and security, and in the process create difficulties for disabled learners.

It can be difficult for disability support staff and teaching staff to engage confidently when discussing e-learning because they lack technical knowledge and confidence. Here, the learning technologist can bridge a gap in understanding. You are in a position to influence things such as ensuring:

- The inbuilt accessibility features in Windows are available for learners
- The default Windows voice is as high quality as possible install an appropriate alternative if necessary for example the Scottish Voices
- The speak function in Microsoft Office 2010 (and onwards) is available in the Quick Access Toolbar.

Learning technologists can ensure tools like text-to-speech and mind mapping are available across the network. If budgets are constrained explore free and open source versions.

There are excellent free plugins for some browsers and these can offer instant support for learners with print impairments. Find out more about accessibility plugins for browsers.

Assess how well you are doing

In 2013 a consortium of disability advocacy groups put together learner-focused guidance on reasonable expectations for print-impaired learners. By using a combination of commercial and free/open source tools you can easily support a wide range of learners at minimal cost.

Make it easy for tutors to create accessible content

Commercial content authoring tools do not necessarily create accessible content, however, the open source Xerte Online Toolkits create more accessible outputs. Xerte can be used in a basic or sophisticated way, depending on the staff expertise

Students can also learn to use Xerte to enhance their skills and understand accessible design.



Who to work with

Disability support teams can often be isolated from activities that have a significant impact on their workloads - like staff development in e-learning. A joined-up programme that includes accessibility benefits and opportunities can make a real difference to the independence of disabled learners.

It is vital that disability staff understand the potential of quality e-learning resources to support disabled learners. By reducing barriers to learning at source, disability support staff can provide wider support without an increase in workload.

Learning technologists should also be aware of the potential of library systems and resources to support disabled learners. They may also advise library and disability staff on how to improve the accessibility of pdf's obtained directly from publishers.

Assessment and examinations officers also may need learning technologists' support to help adapt assessments and processes for disabled learners using assistive technologies.

Senior managers need to appreciate the additional benefits of more inclusive solutions and how risk has been reduced by better implementation. This will improve recognition of learning technologists' skills and help develop the role further.

There are some excellent communities of practice including the Association for Learning Technology and its special interest groups. Such communities are vital for your own professional development but also for helping to raise the issue of accessible tools in a broader context where others can contribute.

Library and learning resource staff

Why this role is important

If you are a library and learning resources professional, the policies you influence determine accessibility. For example:

- Is accessibility a key criterion when procuring e-book platforms or library systems?
- Is there appropriate hardware/software to meet the needs of printimpaired or other learners?



• Is the support for disabled learners communicated effectively via appropriate accessible media channels?

Additionally:

- Your knowledge of content and media can influence reading lists and help teaching staff to provide a more flexible and accessible range of supporting resources
- You can obtain digital versions of textbooks directly from publishers for print-impaired learners
- You can anticipate the needs of disabled people and help them to become independent learners and self-motivated researchers
- Your awareness of open educational resources can help improve the range and scope of resources available, helping to meet the different needs of learners

What you can do

Understand

Familiarise yourself with the particular access requirements of learners with different disabilities. Our guide to 'Meeting the requirements of learners with special educational needs' has a useful overview of all the main access needs. Some people find simulations are a helpful way of developing awareness and there are good online simulations of vision and hearing difficulties.

Reflect and anticipate

Once you understand the barriers faced by disabled learners it is easier to anticipate them and find ways of minimising them. Typical areas to reflect on might include:

- What accessibility features are built into your corporate systems such as the library management system and e-book platforms
- What assistive technology hardware is available to learners in the library?
- Which assistive technologies/productivity software is available to all learners via library PCs?
- What information is available on these technologies and tools and how is it communicated to learners?
- What percent of your print-impaired learners know you can request textbooks in digital format from publishers for them?

One way of reflecting as a team on your current practice is to try out our accessible practice tool which asks you questions and then makes recommendations for improving the accessibility of your library and practices.



Priorities will vary for every organisation depending on current practice. We suggest:

- Exploring our chapter on the accessible library
- Updating your provision to match reasonable learner expectation, for example, text-to-speech with high-quality voices. You can significantly enhance the provision of assistive technology/productivity tools using free and open source software
- Don't pay for inaccessible products that disabled learners can't use. Adapt procurement policies to embed accessibility
- Join with others such as the RNIB Bookshare service to make your efforts on alternative textbooks more effective. Disability focused groups include Creating Libraries Accessible to Users with Disabilities (CLAUD) or the Open Rose group.

Working with others

Develop partnerships

To effectively embed accessibility in your systems you will need to develop good working relationships with IT/network managers, curriculum/quality managers and disability support staff. Ensure they know what you are trying to achieve as their support will be important in ensuring accessibility is seamlessly embedded in library practices.

Get feedback and ideas

Find out from disabled learners how well you are meeting their needs. Ask them for ideas and suggestions as this could save you money.

Maximising resources

Reading lists

The choice of materials can make a big difference to a print impaired learner getting access to resources in a timely manner.

Library staff can help subject specialists to:

• Include links to online resources like high-quality websites. These are inherently more flexible for a print impaired user than hardcopy print



- Include relevant multimedia resources in reading lists
- Avoid putting books on reading lists where it is difficult to get an accessible format quickly. This includes books published before the year 2000 or those from unresponsive publishers.

Audiovisual resources

These may exist as online specialist collections or as physical copies of DVDs and CDs. Print impaired learners may find these formats more efficient to learn from and these resources should be promoted to all learners and tutors. Where audiovisual resources are a core part of a course, make sure text based alternatives are available (captions, transcripts or summaries of the key points) to support learners with sensory impairments.

E-book platforms

An accessible e-book platform will allow users to:

- Magnify text
- Reflow magnified text so no left/right scrolling is required
- Change background/foreground colours or contrasts
- Use keyboard equivalents for all mouse actions
- Navigate text in a meaningful way (eg by heading levels or key bookmarks)
- Selected and read text with text-to-speech tools
- Read alternative text descriptions for graphics and images
- Use the system with assistive technology tools
- Find guidance for all accessibility features.

Some e-book platforms are compatible with mobile and tablet devices. Depending on the quality of the design this may allow them to use the inbuilt accessibility in the device's operating system - for example using VoiceOver in iOS to read a book. See our research on accessible e-book platforms and guidance on good practice (part five of our 'libraries and alternative research' series).

We have produced additional guidance on procuring accessible e-book platforms.

Online collections

Many organisations subscribe to online journals, information databases and resource collections. Being in a digital format they should offer more accessibility than hard copy equivalents however poor design or accessibility ignorance can undermine their flexibility. Ask the supplier to provide information on accessibility features and how they are accessed.

Publisher pdfs/EPUB3



Most organisations have textbooks in the library that are not in their e-book collections. Many textbooks don't exist in e-book collections. In these circumstances, it is usually possible to get a book in electronic format directly from the publisher (if it was published after 2000). See our guidance on obtaining textbooks in alternative formats.

Staff skills

One of the most valuable assets in any library is the expertise of the staff and their ability to anticipate the needs of library users.

Minimising barriers

Access to physical estate

This is more than a ramp to the library. It might also involve access to disabled toilets and disabled parking nearby. Where library services and resources are available online, the barriers created by older buildings with inaccessible designs can be reduced.

However, it is important that disabled learners can still get access to the skills of an information professional. It may be necessary to organise one-to-one meetings in alternative locations to provide an equivalent service.

Access to physical resources

It is important to minimise barriers to accessing physical resources such as books, the photocopier and scanner.

For wheelchair users ensure that shelving is within reach or that the photocopier buttons can be accessed from a sitting position. For visually impaired users, consider how easy it is to use a scanner or copier. These considerations need to be taken into account when procuring equipment for the library.

Access to digital resources

Library website

Library managers may have little direct influence on the accessibility of the website since this may be an organisation wide service provision. Questions to ask include:



- What accessibility features are built into the website/virtual learning environment design?
- Where can learners find this information?
- Has the website been tested with assistive technologies?

The library website normally contains information on services for disabled students. It is vital to produce these pages with the audience in mind. For example, text heavy guidance on services for dyslexic students is unhelpful. Downloadable pdf guides for visually impaired students are unhelpful if they do not reflow when magnified or if they are incompatible with screenreaders.

Library catalogue

When you procure library catalogues, accessibility of the system should be a key feature on the checklist. Although library staff have no direct control over this, it is important to know the benefits and barriers to inform disabled learners. This information should be requested from the supplier.

E-book/journal/database platforms

Our e-book research shows variability in online resource platform accessibility. It is vital that learners know what features exist, however if this information is not obvious from the interface, contact the supplier and request a plain English accessibility guide.

If a supplier does not provide this, you should negotiate a lower licence fee since you will need to budget for someone to test for accessibility. It is unreasonable that a disabled learner should have to investigate the accessibility benefits, barriers and workarounds in a system before they can rely on using it independently.

The accessible library

Hardware

Hardware tools can support quite specific learner needs. Visually impaired readers benefit from a range of magnification aids including:

Portable magnifiers

Ideal for reading hard copy books. They range from plastic sheets and glass lenses to be poke digital magnifiers and apps for smartphones. Features to look for include the ability to change colours, contrasts and zoom levels. The advantage of



these tools is their portability and cost effectiveness, however the navigation round a page can be awkward which slows reading speed.

CCTV magnifiers

These are similar to large TV screens on which an image of print (for example an open book) is projected and makes navigation less awkward. Features to look for include the ability to change text size, colours and contrasts. More advanced versions allow optical character recognition so that magnified text can be reflowed to fit the screen, irrespective of the level of magnification.

Scanner/reader

Many learners benefit most from print pages being transformed to digital text with optical character recognition software. Once in digital format, the text can be saved as a document, read by text-to-speech tools or saved as mp3 files depending on the scanner/reader's functionality.

Dyslexic users can also benefit from scanner/reader tools so that hard copy text can be listened to or read with different font colours or types.

Deaf learners' key hardware requirement is likely to be a personal audio system to allow one-to-one communication with library staff.

Software

This can benefit a wide range of learners with and without disabilities. There are free and commercial versions available.

Those most likely to exist on most networks (such as Microsoft Word and Adobe Reader) have inbuilt accessibility features to allow colour and font changes along with magnification, reflow and navigation shortcuts. Many disabled learners are unaware of these. Examples of software tools include:

- Text-to-speech (TTS) which takes digital text and turns it into synthetic speech audio. It benefits from an authentic voice and there are many downloadable options available including the Scottish voice
- Word prediction tools can speed up typing for people with motor difficulties and/or improve spelling
- Mind mapping tools help with planning and organisation information. They are popular with dyslexic and deaf learners since they rely more on graphics than text
- Colour changing tools and other display enhancements allow users to personalise their screen view. This can be helpful for note taking (keeping



focus on the right part of the page) and make reading more efficient for people with scotopic sensitivity or colour/contrast problems.

If learners are not aware of what the tools do, or how to use them, they will tend to revert to less efficient ways of working. Promoting these tools is an ongoing task and can be achieved via posters, newsletters, case studies and social media.

Bring your own device (BYOD)

The library PC network is only part of the learners' software toolkit. Many will have smart phones and tablets with a range of apps installed. Some will have significant accessibility benefits, for example services like CaptiVoice let users create playlists of resources from web pages, Google Drive or Drop Box. These can be rendered with text to speech or with a range of visual enhancements for reading on a tablet, phone or PC.

Browser-based plug-ins can make reading and research much simpler by aiding note taking and referencing (for example Zotero), aiding concentration of focus and even developing speed reading skills (Spreeder).

Services

Many libraries have specific services for disabled learners including technology-based services (obtaining e-book publishers, scanning services, alternative format provision) and/or human-mediated provision (for example a book fetching service for a wheelchair user)

Promoting your local services is an obvious part of good practice but as a result of recent changes in copyright law, there is an opportunity for your services to contribute to a national resource bank of accessible textbooks. The free RNIB Bookshare service provides a technical infrastructure and trusted intermediary to act as a repository for any 'intermediate versions' of accessible books that you may create for disabled learners.

Self-assessment

Our accessible practice tool asks you questions and then makes recommendations for improving the accessibility of your library and practices.

Marketing staff

Marketing teams contribute significantly to raising the overall profile of accessibility and inclusion. You can demonstrate good practice in your own



documents, and develop effective communication campaigns informing learners about the support that is available to them.

It is vitally important that your marketing materials are as accessible as possible as they demonstrate the accessibility awareness of your organisation. To maintain credibility, it is essential that:

- Your website design and navigation is clear and simple
- Your accessibility statement is written in plain English and is easy to understand
- Support for disabled learners is clearly signposted
- Electronic versions of your prospectus, documents and online application forms are accessible.

What you can do

Anticipate

Prospective students with print impairments may attend your open days, download your prospectus and visit your website. Those with a severe visual impairment will need accessible marketing materials through technologies such as screen readers. Others may need to change their view of your digital resources, for example changing magnification or font size.

Some prospective students will access resources with text-to-speech tools or request alternative formats.

Evaluate

Start by mapping out the accessibility of the marketing department's resources. Look at good practice with accessible Microsoft Office documents and pdfs. Consider the basics like document structure and navigation:

- Can visitors navigate your digital prospectus using heading styles or bookmarks?
- Are there alternative descriptions for complex tables or graphics?
- Can text be magnified and reflowed so that it still fits the page?
- What do your current disabled staff or learners think about your marketing materials?
- How do your materials work with assistive technologies?

Good accessibility is normally a better experience for all but beware of adding accidental barriers. Video and audio clips may be great for engaging dyslexic learners or international students but if you forget to add appropriate transcripts, you might end up disadvantaging a different group of learners.



Communicate

- How do you tell people about what you do to support them?
- Where is the accessibility information on your website?
- How many actions does it take to find it?
- Where can people find out about the accessibility of your prospectus for example whether it will reflow on magnification or whether it is tagged for structural navigation or reading order?

Communication, however, should encompass more than the accessibility of your marketing materials:

E-learning maturity

Organisations with a wealth of digital resources (like VLE's, interactive whiteboards or e-book platforms) are in a better position to offer resources that can be accessed independently or personalised to suit their needs.

Assistive technology provision

Organisations with text-to-speech or mind mapping on all PCs provide significant benefits for print disabled learners.

Named contacts

No matter how great the technical infrastructure and assistive technology provision, making it clear who can be contacted (and how) is vital for reducing barriers for disabled learners. Do your flyers advertising open evenings or taster days include a contact name/number for additional support needs?

Holistic approaches

How well do you communicate the bigger picture of accessibility? For example, do your site maps include disability related information such as disabled toilets and inaccessible buildings? Do you plan the availability of alternative formats or wait until you are asked for them?

The former may take some thought but can be more cost effective to produce. It is more efficient to offer an accessible prospectus that can be adapted to personal preference than to print dozens of copies on different coloured paper with varying magnifications to suit open-ended individual requests.

Prioritise

Key to all of this is:



- Knowing your accessibility strengths and communicating them
- Knowing your accessibility weaknesses and identifying:
 - Which can be tackled quickly and easily
 - Which need an alternative provision
 - Which need a long-term improvement plan
- Effective planning and prioritising arising from the considerations above
- Consulting with disabled learners or staff in these processes.

Disability-friendly marketing will encourage learners to access the help they need. It will also reduce the risk of exposure under the Equality Act.

Working with others

Marketing departments can only produce accessible experiences for end users if they work with others:

- Subject heads usually provide prospectus text which may follow a standardised template. Use heading styles so that when you compile the information across the organisation it has an inbuilt structure
- IT and web teams have a significant influence on your website. Include accessibility in the procurement criteria and accessibility testing as one of the sign-off requirements
- Graphic designers and typesetters, whether sourced internally or externally, must have an understanding of accessibility. The digital prospectus should have a clear heading or bookmark structure for navigation and should reflow when magnified
- Disability support staff and disabled staff or learners can help you understand the issues of accessible marketing. Make sure you use their experiences to full effect.

Senior managers

Senior managers must ensure that their organisation follows best practice for accessibility. They set an example for the whole organisation and their policies directly affect the experience of disabled learners.

There is a legal obligation for organisations to ensure that no-one is disadvantaged because of a disability.

What you can do



Set the right example

Show commitment to accessibility so staff will understand that it's everyone's responsibility. Ensure that relevant teams co-operate - for example text to speech access to textbooks will require input from the library, the IT/network team, subject leads and learning support teams.

There are often examples of good practice within organisations which are not widely known about. Sharing this good practice can help all staff to improve the accessibility of their work.

Research conducted in 2008-9 resulted in the 12 steps towards embedding the inclusive use of technology report. This outlines steps that you can take to improve accessible practice throughout your organisation. Despite the age of the report, the principles are still very sound.

Create inclusive policies

There are a range of benefits for organisations that adopt policies that can support accessibility and inclusion and an accessibility evaluation and signposting service is available for all Jisc members as part of their subscription.

Equality and diversity policy

This should be accompanied by an action plan detailing how each department will ensure its services and environment are inclusive. It should work alongside the other policies to ensure that accessible practice happens across the organisation.

Admissions policies

This must be widely available and ensure that students with disabilities are not discriminated against in the admissions process. The one possible exception to this rule is where competence standards are set by professional bodies.

Even if this is the case, the organisation has a duty to check that the professional bodies' requirements are fair and appropriate and to challenge them if necessary. The prospectus, marketing materials, and application forms and processes need to be barrier-free.

Assessment, learning, teaching and quality assurance

This should facilitate and promote the use of technology to support learning, teaching and assessment, and highlight the potential benefits of doing so. It should specify minimum accessibility standards for learning materials – for example, the use of the notes field in presentation slides.



The accessibility of current assessment processes should be reviewed and where the organisation uses external awarding bodies, policies should exist for maximising the use of exam papers in accessible formats. Higher Education institutions should look at providing inclusive learner experiences through the learner journey.

Policy on adjustments to academic processes for disabled students

Academic processes like assessments, practicals, field courses and presentations may pose challenges to disabled learners. Wherever possible there should be:

- A review of current practice to ensure the mainstream processes are as inclusive as possible
- Awareness of tools and technologies that could make current practice more accessible to disabled learners (for example use of mobile apps on field courses).

In exceptional circumstances there may need to be an adjustment to academic processes but the aim should always be to maximise the mainstream experience. The balance between adapted requirements versus those which are distinct is a policy decision that needs advance consideration.

IT provision and usage policies

These should demonstrate the provision of a range of technologies and encourage the use of in-built accessibility tools. For financial reasons it may be appropriate to promote free software and/or open source alternatives.

There should also be an organisational policy on assistive technologies, many of which are of use to everyone so where possible, they should be networked and available for all users. As a minimum, mind mapping and text-to-speech (with high-quality voices) should be available across the network. Many tools can be utilised from memory sticks without the need for installation - IT policy should encourage the use of such technologies in areas of the network where such tools are not already available.

Procurement policies

Many accessibility problems are the result of poor procurement policy where organisations buy into inaccessible systems. This can create significant support costs. The procurement policy should specify accessibility in the products under review and ideally test with disabled users before purchase.

Working with others



Make sure that appropriate staff training is available.

Teaching and learning staff

Teaching staff will need training on producing and delivering accessible learning resources.

IT staff

IT staff need to be aware of the accessibility features that are built into operating systems and ensure that they are enabled. They should also know about the free and open source software that may be useful to all learners, but particularly disabled learners. They need to ensure suitable high-quality synthetic voices are available as defaults on the system. Free voices are available in England, Scotland and Wales.

Library staff

Print impaired learners (up to 10% of the population have dyslexia or visual impairment) can potentially benefit from books in an electronic format; library staff need to know how to obtain these. See our guide to obtaining textbooks in alternative formats.

Disability staff

Disability staff need to be aware of the accessibility potential in mainstream software and hardware, for example the accessibility features in Windows or Mac OS or in mobile devices like phones and tablets. They may also find it useful to know about free and open source assistive technologies. They should be aware of the inbuilt accessibility features in the different e-book formats – for example magnification reflow and colour changes in pdf files, or the wide range of accessibility options in electronic publication (EPUB) files.

Marketing and admissions

Staff responsible for marketing and admissions need to know how to produce accessible documents and may benefit from guidance on web accessibility.

Governance

Under UK law, it is the governing body of an organisation which will be held responsible if that organisation is challenged. Governors of every education organisation need to ensure that:



- Accessibility is on the agenda of all high-level committees where appropriate
- The organisation's strategic aims should feature inclusive principles
- Senior managers have specific duties to progress towards more inclusive mainstream provision across the organisation.

Staff developers

Why this role is important

Staff developers have a key role in improving the quality of teaching and learning. Ongoing staff development should include improving disability awareness and the potential for inclusive teaching practices to make a significant difference to disabled learners.

If teaching staff use technology effectively, learners have access to digital resources which offer more flexibility. This includes being able to magnify text, change colours or font types, use text-to-speech, and engage with different media. Digital resources can be made available for anytime, anyplace learning which can be further enhanced if staff create mobile-friendly formats.

For an organisation to become genuinely inclusive, staff developers need to work with senior management teams to ensure that:

- Basic accessibility awareness is part of staff induction
- Teaching and learning policies and quality assurance systems make reference to accessibility
- Different departments are aware of areas where they could work together.

What you can do

Ensure mainstream IT training covers accessibility

Many introductory IT training courses fail to cover accessibility and sometimes reinforce poor practice. For instance, using formatting such as bold, underline or manually changing the font size for subheadings instead of using heading styles reduces the accessibility of documents.

By ensuring introductory IT training is focused on accessible practice and valueadded teaching opportunities, you will equip tutors to support a much wider range of learners.



See Microsoft's guidance on accessible documents and presentations.

Promote assistive technologies

Whilst not all assistive technologies are suitable for everyone, productivity tools such as mindmapping and text-to-speech can provide benefits for staff and learners.

If your organisation uses alternative browsers like Mozilla Firefox and Google Chrome there are excellent free plugins that can offer instant support for learners who are print impaired and struggle to understand written text. Find out more about browser plugins for accessibility.

Offer training to support identified groups

Organisations have different demographics - some attract a high proportion of dyslexic learners whilst others might attract visually impaired learners. There is general information available on supporting these learners but it is often difficult to find practical information that focuses on how day-to-day technologies can support them.

Our guide to 'Meeting the requirements of learners with special educational needs' explores practical ways of supporting a range of specific needs.

Support personal tutors and pastoral roles

Students are often assigned a tutor for support and guidance. They are ideally placed to co-ordinate advice about the use of technologies for learning and can also advocate suitable technologies, such as e-books. As their experience of working with learners with disabilities increases, they will be more attuned to new possibilities.

Help disabled learners self-advocate

Staff development sessions on inclusion are much more authentic if they involve people with disabilities. If you have screenreader users in your organisation, ask them to support the web team's professional development by evaluating the accessibility of website developments. They could also work with the library team to identify accessibility problems with the e-book collections or library advice and guidance.

Assess how well you are doing

In 2013, a consortium of disability advocacy groups put together learner-focused guidance on reasonable expectations for print impaired learner. Identify if there are



any of these expectations that you are not currently meeting - these are potential areas for improving staff development.

Make it easy for tutors to create engaging inclusive content

The open source Xerte Online Toolkits create more accessible outputs than many commercial rivals and has the added advantage of producing mobile-friendly content. There is a strong Xerte community with many showcase examples on their site.

Who to work with

Disability support teams can introduce people to:

- The potential of inbuilt text-to-speech in Word
- Free assistive technology tools for learners
- The benefits of e-books for print-impaired learners.

Additionally:

- Learning technologists can embed technical skills and work with disability specialists to explore accessibility benefits and barriers of different tools
- Administrative staff can produce student guidance and information or prepare it for teaching staff
- Library teams can use their knowledge of online resources and media repositories to help staff teach in more inclusive ways.

Tutors and teaching staff

Why this role is important

Tutors play an essential role in reducing barriers to learning. It is unrealistic for you to have an in-depth knowledge of disability, however, there are some important principles that improve the learning experience for all.

Your choices of resource, activity and assessment have a profound impact on learners with disabilities. In many teaching contexts, most resources focus on text, most activities focus on reading and most assessment methods focus on writing.

This creates a significant barrier to those with print impairments (for example, visual impairments or learning difficulties such as dyslexia), and those for who



English is an additional language - including deaf students who use British Sign Language (BSL).

Technology is not the only way of providing inclusive learning experiences but it has a significant impact on:

- Enhancing your repertoire of approaches
- Enabling learner personalisation
- Supporting and promoting learner independence

Resources

For many tutors Word documents and PowerPoint presentations are staple resources. Make sure these are available online and follow basic accessibility practices.

Your library may subscribe to e-book platforms. If so, investigate how you can incorporate these into your teaching - they are more accessible than hard copy textbooks usually allowing learners to change text size or colours and use text to speech and a variety of inbuilt search and reference tools.

Rich media, for example podcasts or video clips can benefit many learners. For maximum benefit provide a text version of the main teaching points for videos or audio to make it easier to search and copy/paste key points from the information. This will also benefit blind or deaf learners who will otherwise miss content.

Make best use of the mainstream technology tools available. Virtual learning environments can store documents but can also create discussion lists or quizzes or let you link to a range of differentiated resources. If you have access to an interactive whiteboard or a lecture capture system get training on how to use it well. Consider using social media to create self-supporting learning communities.

Activities

There is no 'ideal' activity that is equally accessible to all. The best way to minimise barriers is to ensure a good range of activities so that everyone can take part in something that suits them. If you only have one or two disabled learners in your group then it is easy to focus on activities that they can access and engage with. The list of possible activities is very long but a selection is included below with potential inclusion strengths and weaknesses.

Teaching by asking

Mind mapping



Practical or fieldwork

Group work

Online simulations

Creating and editing audio resources

Creating and editing video resources

Online discussion lists

Role play

Reading and responding to paper documents

Reading and responding to online documents

Assessment

Technology can support formative assessments, giving valuable feedback to both learner and tutor. Jisc has detailed guidance on inclusive assessment.

Higher education institutions have more scope in providing flexible assessments but FE and Skills providers need to assess learners in the way they will be assessed by the awarding body. However, consider the following:

- Ask the awarding bodies to accept evidence in alternative formats such as video diaries or audio explanations
- Use electronic assessments to build confidence in knowledge and understanding you can use quiz tools even if the final exam will be more traditional. Join Jisc's Tech Enhanced mailing list
- Collecting assessment data on a regular basis helps the learner understand how well they are progressing and helps you to understand how well you are teaching
- Your learning platform may have some basic quiz tools however content creation tools allow you to produce interactive, accessible content and many web based apps produce quizzes learners can use with smartphones. See the Jisc case studies on assessment using mobile devices

Many online test creation tools lack accessibility and do not allow you to change font sizes, colours or use text to speech. Xerte Online Toolkits is more accessible than many other systems and is compatible with tablet devices and many smartphones.



Remember that one of the most effective ways of learning a subject is to teach it or test it so make sure you give learners opportunities to set tests for one another or peer mark each other's work.

You are in:

- Advice
- Guides
- Enhancing staff support for learners with disabilities
- Full guide

Give feedback

Areas

Connectivity

Cyber security

Cloud

Data and analytics

Libraries, learning resources and research

Student experience

Trust and identity

Advice and guidance

Explore

Guides

Training

Consultancy

Events

R&D

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Spotted an issue?