# Supporting D/deaf and hearing impaired within an Online Learning Environment

## Introduction

Queen Mary is required to ensure that disabled students are not treated less favourably than other students. Given the University’s stated strategic goals around inclusivity, the Disability and Dyslexia Service has issued this guidance to help ensure D/deaf[[1]](#footnote-1) and hearing impaired students are supported, as the challenges for D/deaf and hearing impaired students can be greater than those faced by other students. This will help Queen Mary ensure that we adhere to our key strategic aim of being ‘the most inclusive university of its kind, anywhere’. Areas covered within this guidance include:

* General Advice
* Challenges for D/deaf and hearing impaired students in Live and pre-recorded sessions
* Advice about how to make recordings more accessible
* Other Course Materials
* Further support provided by/via the Disability and Dyslexia Service
* Advice regarding specific students

## General Advice

1. **Provide good quality notes/teaching materials in non-audio format** (resources such as [Queen Mary’s Accessibility Principles for Text and Multimedia Teaching Materials [DOC 16KB]](http://www.dds.qmul.ac.uk/media/disability-and-dyslexia-service-/documents/QMUL-Accessibility-Principles-for-text-and-multimedia-teaching-materials.docx) and Queen Mary’s [Digital Accessibility Checklist [DOC 23KB]](http://www.dds.qmul.ac.uk/media/disability-and-dyslexia-service-/documents/Digital-Accessibility-Checklist-V7.docx) may help)
2. **Use available** [remote teaching support resources](https://elearning.qmul.ac.uk/announcements/remote-teaching-at-qmul/)
3. Utilise the tools and information available to help [enhance accessibility of your teaching](https://elearning.qmul.ac.uk/enhancing-your-teaching/accessibility/).
4. **Provide lecture/seminar notes** at least 24 hours before the session to which they relate
5. Use **good-quality presentation slides**/visuals to provide context
6. Ensure all information/feedback is easily available in **written format**
7. **Structure** sessions clearly
8. **Use** **plain English** when speaking, and always try to provide written glossaries of terminology.
9. Clearly **indicate a change in topic** during a session
10. **Face the students/camera** when speaking and ensure you have adequate lighting
11. **Use a good quality microphone, mounted as close as you can to your mouth** (please remember that some students may be lip-reading so please do not have a microphone in front of your mouth during videoed content)
12. If you are broadcasting/recording information and you have the option to **use video** rather than audio you should use it. Ensure the quality of the video is good, and that your mouth is clearly visible.
13. In group sessions ensure only **one person speaks at a time** - if you are online using a platform that has a chat box then encourage this to be used to ask questions, and/or add key points using this feature. If not then use the “raise hand” feature to encourage others to take turns and not speak over one another. When you invite someone to speak ensure that you identify them (or get them to introduce themselves)
14. **Don’t expect students to be able to listen and do** at the same time. If students are in the middle of a task then they should be brought back to listen to further information. Similarly, if you wish to ask a question, ensure you have everyone’s attention.
15. **Take your time** when you are speaking, whether that be live lectures, seminars/tutorials or recorded sessions. Clear speech will help everyone, and slow speech will make it easier for students to take notes.
16. **Consider tone.** If use of irony/sarcasm is important think how this would be affected if the tone was removed, and only the words remained.
17. **Keep timetables consistent.** Ensuring sessions are regular enables external support to be implemented more efficiently
18. Use **live captions** for online sessions (see section below)

## Challenges for D/deaf and Hearing Impaired students in Live and Pre-Recorded Sessions

Live recordings can provide a number of challenges for D/deaf and hearing impaired students, such as:

* the quality of the video being insufficient for lip-reading
* the audio being too poor to hear clearly
* internet limitations causing either of the previous problems
* Background noise (at either recording or playback time)
* limited access to IT (e.g. students may have to watch lectures on mobile technologies, which are not big enough to be able to lip-read adequately, or may have too poor speakers to hear properly)
* staff delivering lectures may not always face the camera whilst speaking
* lighting may be too poor to create an adequate video
* support such as hearing loops are not available when studying online
* insufficient context

You will note that some of these difficulties would not necessarily be solely faced by D/deaf and hearing impaired students, but a hearing impairment would exacerbate these difficulties exponentially.

## How to Make Recordings More Accessible

There are various options available to make recordings of lectures and other taught sessions more accessible to D/deaf and hearing impaired people.

### Live Captioning

#### Professional Captioning Live Streams

The best way to provide this form of support is via professional captioning. This is when the stream is watched by another person, whose job it is to add captions to a live video stream. This will ensure that hearing impaired students are able to access the content with the highest quality captions available. There are many companies/products that can provide this service, including:

* [AI Media](https://www.ai-media.tv/products/live-content/live-captions-cart/)
* [3PlayMedia](https://www.3playmedia.com/plans-pricing/)
* [VITAC](https://www.vitac.com/services/live-captioning/)
* YouTube captioning (either [professional](https://support.google.com/youtube/answer/3068031) or [automatic](https://support.google.com/youtube/answer/6373554?hl=en-GB))

We appreciate that this will result in an additional expense to Queen Mary Schools and Institutes, but it may be necessary to provide this level of support for some D/deaf and hearing impaired students to ensure that we can appropriately support them.

##### Additional tip for the Presenter

**Can you provide tips/information to the person doing the captioning before the session?** If more than one speaker is involved then it is useful to provide names. Similarly, if you are using jargon/acronyms/keywords then it can be worth letting the person know in advance so this is correct on the captions.

#### Auto Captioning Live Streams

Captioning can also be automatically be added to live streams, using voice-recognition. This is not as accurate as professional captioning, but can be a useful resource in case other options are not available for any reason.

Products that provide this feature include:

* [MS Teams (although this is limited)](https://support.office.com/en-gb/article/use-live-captions-in-a-teams-meeting-4be2d304-f675-4b57-8347-cbd000a21260)
* [Google Meet (although this is limited)](https://support.google.com/meet/answer/9300310?co=GENIE.Platform%3DDesktop&hl=en)
* YouTube captioning (either [professional](https://support.google.com/youtube/answer/3068031) or [automatic](https://support.google.com/youtube/answer/6373554?hl=en-GB))

### Captioning Video

#### Professional Captioning

If live captioning is not possible (usually this would be due to technical problems, or content being produced in advanced and not being used live), then videos should be captioned (also sometimes referred to as subtitled). Many of those listed above will also be able to carry out this work, as can companies such as [Rev](https://www.rev.com/caption) and added to resources such as via [YouTube videos](https://support.google.com/youtube/answer/6373554?hl=en-GB). [QMPlus Media](https://elearning.qmul.ac.uk/application/qmplusmedia/) has a hybrid system which [generates auto-captioning](https://elearning.qmul.ac.uk/guide/how-to-edit-your-closed-captions-for-qmplus-media-videos/), but then allows the captions to be edited, which can be used to give professional quality results. Where materials cannot be live captioned then recorded material should be considered so it can be made available to all students simultaneously.

#### Auto Captioning

As with live sessions, captions can also be automatically be added to videos, using voice-recognition software built in to some platforms, such as [QMPlus Media](https://elearning.qmul.ac.uk/application/qmplusmedia/) ([E-learning would be able to advise further](https://elearning.qmul.ac.uk/enhancing-your-teaching/accessibility/)) and [YouTube](https://support.google.com/youtube/answer/6373554?hl=en-GB). This is not as accurate as professional captioning, but can be a useful resource in case other options are not available for any reason. Queen Mary also currently has around 1200 hours of captioning available for Q-Review recordings. E-Learning are looking into getting this extended to include an unlimited amount of hours. If you have queries about this please [contact E-Learning](https://elearning.qmul.ac.uk/), who would be pleased to advise.

##### Queen Mary Recommends

If you are using auto-captioning then we would strongly recommend you use **QMplus Media** in conjunction with Q-Review for this purpose as this can assist with the following:

* [QMPlus Media has a hybrid system which generates auto-captioning](https://elearning.qmul.ac.uk/announcements/adding-captions-to-your-videos-on-qmplus-media/), but then allows the captions to be edited, which can be used to give professional quality results.
* QMplus Media can also provide a transcription of the material.
* Uploading videos directly to QMplus Media allows users to watch videos on various devices and with adaptive bitrates to support students with a range of devices
* Direct QMplus upload can cause issues such as students have to download a large file which may not work on their device, exacerbating problems for students who have a poor network connection.

[More information about features within QMplus Media, and advantages it can offer can be found here.](https://elearning.qmul.ac.uk/guide/getting-started-with-qmplus-media/)

### Transcriptions

If captioning cannot be used for any reason then a transcription must be included. Situations which may require transcriptions are rare and include instances where videos are being used but the original files are not held in a format which can be captioned. This is not best practice, but there may be some isolated instances where this is essential. Other items that must be transcribed include audio recordings. Providers include:

1. QMplus Media (see below)
2. [Transcript Divas](http://transcriptdivas.co.uk/)
3. [Transcription City](http://www.transcriptioncity.co.uk/)
4. [UK Transcription](https://www.uktranscription.com/3/)
5. [JHTS](http://www.jhts.co.uk/)

Please note that there are other external companies that provide this work, and Queen Mary does not currently have a preferred supplier. The Disability and Dyslexia Service cannot recommend a provider, as we do not usually get involved with this type of work, so our advice would be that if you would like to seek feedback about a provider you should contact your Student Support Officer who may have experience of this (or contacts within other Schools who do).

##### Queen Mary Recommends

For best results we would recommend you use a professional transcription service (as detailed above). If you cannot use professional transcription and then we would strongly recommend you use **QMplus Media** for this purpose as:

* [QMPlus Media has a hybrid system which generates transcriptions](https://elearning.qmul.ac.uk/guide/how-to-edit-your-closed-captions-for-qmplus-media-videos/), but then allows them to be edited, which can be used to give professional quality results. This type of hybrid system would be the only reasonable solution if professional transcription is not possible.

[More information about features within QMplus Media, and advantages it can offer can be found here.](https://elearning.qmul.ac.uk/guide/getting-started-with-qmplus-media/)

## Other Resources

As you may know, Queen Mary has an anticipatory duty (as outlined within the Equality Act (2010)) to ensure that disabled students are not treated less favourably than other students. This means that in the last decade Schools will have been getting used to ensuring that items such as video content have captions, and transcriptions of audio content are provided.  As such, it is envisaged that this area will not need further work.  If you do have queries please do get in touch.

## Further support provided by/via the Disability and Dyslexia Service

### Note-taking

Some students will have note-taking recommended as a reasonable adjustment by an independent Study Needs Assessor or the Disability and Dyslexia Service. If so then it’s likely that DDS will still be able to arrange this – usually this would involve a note-take being added to the live stream, or having a copy of the session sent to them afterwards from which to make notes. Either of these note-taking solutions would result in the live session being relatively inaccessible to the hearing impaired student, and therefore, attendance should be considered optional in most cases. We would, therefore strongly recommend the addition of live captions instead of this support for online sessions.

### British Sign Language

Students reliant on British Sign Language (BSL) support – which is co-ordinated by the Disability and Dyslexia Service – will require their interpreters to have access to lecture recordings. NB: this is a strand of provision provided external to the university, as university disability services do not typically contain professional sign language interpreters. Please contact the Disability and Dyslexia Service for more information.

### Disabled Students’ Allowances

D/deaf and hearing impaired students may also qualify for support via [Disabled Students’ Allowances](https://www.gov.uk/disabled-students-allowances-dsas) from their funding body, which can be used to provide other support due to their disability. Students should be advised to contact the Disability and Dyslexia Service to discuss other support available. The Disability and Dyslexia Service continue to offer appointments, and are able to make bespoke recommendations to help support the student and School. Whilst we hope this guidance is useful, we would strongly recommend meeting with students in order to provide further, bespoke recommendations.

## Advice about Specific Students

If you would like advice regarding a specific student please contact the Disability and Dyslexia Service and we would be pleased to advise.

**Disability and Dyslexia Service
Student and Academic Services
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1. \*People who are pre-lingually deaf and who rely on sign language may wish to use a capital ‘D’ as they define themselves as a distinct cultural, social and linguistic group. [↑](#footnote-ref-1)