Supervision is fundamental to Cambridge undergraduate education. There are variations, of course, across the spectrum of academic disciplines and a supervision at the beginning of the first year is different from a supervision towards the end of the first year – and from a supervision mid-way through the final year.

The most obvious approach to supervising online is to replicate what you and your students would normally do, using video conferencing. There are a range platforms to choose between and for many, video conferencing has clear advantages in allowing supervisors and students to see and hear each other. For many, this form of human contact may also be particularly valuable during periods of social distancing.

There are some technological limitations, as well as important considerations concerning the requirements of disabled students and staff including those with neurodiverse profiles. And, as anyone who has taken part in a multi-person video-call will know from their own experience, it takes time to learn how to take part in – and to guide – discussions and exchanges that include, rather than exclude, contributors.

In this introductory guidance, we have tried to highlight some of the tools that are available, their advantages and limitations, and to suggest some alternative ways of supporting students’ supervision learning. But it takes time to develop – and improve – different approaches, so once you’ve identified any particular considerations that you and your students need to be aware of, it’s reasonable to start with what you and your students know and are comfortable with.

If as a supervisor you have questions about supervising online, try to find others to share your questions with:

- your students may be able to give you ideas about what’s working and how to engage with challenges
- fellow supervisors may be able to help each other to share ideas and resources: this is a great opportunity for cross-fertilisation and innovation
- as ever: if you’re worried about supervisees or have difficulties holding supervisions in the way you had expected (for example, illness/serious interruptions to internet connectivity): contact their Director of Studies or Faculty/Departmental Teaching office (as appropriate).
to normal variations, there is currently a huge increase in online traffic. Everyone is likely to have experienced difficulties, ranging from delays in the transmission of sounds and images to longer interruptions. Students in some countries (particularly China) have heavily filtered internet access. Be prepared for your preferred system not to work, or to stop working at some point.

There are ways of trying to mitigate these difficulties. When you’re planning for supervisions, try to have some fall-back options – we’ve offered some suggestions in one of the following sections, ‘Planning Supervisions’. Delays in sounds and images also mean that it’s beneficial for supervisors and supervisees to have some sort of framework for guiding interactions, so that everyone is included. You may already have some ‘classroom management’ techniques that you can adapt and share with your students; you may find some ideas in ‘Guiding inclusive discussion and interactions’.

Note: for disabled students and those with neurodiverse profiles, video calls can cause major difficulties. We’ve provided some more detailed information, and some suggestions for good practice in ‘Guidelines for supervisions with disabled students’.

In some subjects and colleges, Directors of Studies may already have information about the technologies available to students and be able to share this with supervisors, so as to minimise the numbers of enquiries that students need to respond to.
There is lots of information online about the types of environment that are conducive to teaching and learning: create a suitable area, keep it tidy and clear of distractions, manage your time and plan your day. This is good advice, in general – yet there may also be good reasons why it’s not applicable to students or supervisors working away from their usual Cambridge locations. Most obviously, people may be living in spaces which are shared with others, for example, family members, and illness or caring for others may restrict time available. There are also considerations relating to connectivity and bandwidth: several members of a household may be working or studying online, for example (see previous section).

There are other considerations relating to ‘availability’ for supervisions. Most obviously, if you’re supervising students in a different part of the world from where you are, it’s possible that you may be in different time zones.

Try to factor these considerations into your planning and try to enable your students to let you know of any difficulties they experience – as well as practical ideas that they may have for working around them.

There are some important, but basic things to check through before you start supervising using video conferencing, including privacy. We have summarised what we think are the main ones in ‘Supervising and conference calls: setting up your technology and your environment’.

PREPARING TO SUPERVISE ONLINE: ii. Environments and availability

KEY POINTS

• Where will your students be, physically, for supervision?
• How available will they be for supervision, in the next period?
Undergraduate supervisions vary in size. Many will consist of two, three or four students, and almost all video conferencing tools will support this. The most familiar options are:

- Teams (‘Conducting a supervision with Teams’)
- Google Meet (‘Conducting a supervision with Google Meet’)
- Zoom (‘Conducting a supervision with Zoom’)
- Skype

Microsoft Teams and Google Meet (within Google Suite) are both supported by the University Information Services. This means that all students already have accounts and the University has reviewed issues of data protection, privacy and security.

The difference between Teams and Google Meet is that Teams is a full collaboration product with chat rooms, document sharing and many other features. Google Meet is a straight-forward video chat platform.

Zoom has become familiar to many in recent weeks. Please be aware that there can be serious concerns relating to privacy. If you decide to supervise using Zoom, please read the guidance on privacy and setting up secure Zoom meetings that we have provided.

Please note: there are some important differences in terms of accessibility for disabled students, in particular the availability of live captioning and the production of automatic transcriptions (important for students with hearing impairments, and also beneficial for those for whom English is not the first language).

A comparison of the features offered by different video conferencing options, highlighting considerations relating to accessibility for disabled students, ‘DRC comparative assessment video conferencing’.
Please note: the arrangements described in this section relate only to the period of remote teaching and learning which is a result of the Covid-19 pandemic.

In the exceptional circumstances in which we find ourselves, disabled students with permission to record face-to-face teaching should be permitted to record online supervisions, to help to minimise the disruption to their learning. This is in line with the University’s Code of Practice: Reasonable adjustments for disabled students.

At present, there may be other reasons why supervisors and students who are not disabled may also agree to record online supervisions. These agreements are appropriate where they help to minimise the disruption of learning for supervisees taking part in the supervision, as well as to share the supervision with students who are not able to attend (for example, for reasons of illness or caring for others) or who are currently in environments in which it is difficult to give the level of concentration that would be normal in a Cambridge supervision room.

If there is a request to record a supervision, it is for you as supervisor to determine whether it is appropriate for the session to be recorded, taking into consideration the interests of other participants, including minimising the disruption to learning during these exceptional times. As a supervisor, you will want to take this decision in advance of the supervision and let students know, confirming to students that the recording will be purely for study purposes and will not be posted online.

If you have agreed to recording, at the beginning of the supervision, remind supervisees that the session will be recorded. Please note: you may pause recording during supervision if you consider this appropriate and let students know that you are doing so. Some subjects, for example, involve discussion of sensitive subjects; in other instances, there may be pastoral reasons for pausing recording.

As we noted in the previous section, there are some important differences in terms of accessibility for disabled students, in particular the availability of live captioning and the production of automatic transcriptions (important for students with hearing impairments, and also beneficial for those for whom English is not the first language).

A comparison of the features offered by different video conferencing options, highlighting considerations relating to accessibility for disabled students, ‘DRC comparative assessment video conferencing’.

**KEY POINTS**

- Disabled students with permission to record face-to-face teaching
- Requests to record supervisions to minimise disruption to learning during the pandemic

Back to main menu
Supervising undergraduates is often described as a flexible, personalised way of teaching, with a strong focus on feedback which helps students to consolidate and extend their understanding and to understand their current strengths and how to improve.

Making time in advance to identify what you think students taking part in your supervisions should learn and be able to do (for example, develop problem-solving abilities, or their capacity for interpretation or critical evaluation), will help you to plan your supervising online and to make the most efficient use of the time you spend in the supervision. There is no expectation that you should spend more time supervising, and Faculty or Departmental supervision norms will still apply – so keep track of the time you spend online.

It is also likely that supervising and supporting students’ learning online may require more deliberate structure than you’re used to giving, for other reasons. If you’re supervising more than one student, for example, at the least you’ll find it helpful to direct your questions, to avoid both students trying to answer at once – delays in the transmission of sound and images can make interactions feel stilted and you and your students may need to take a little time learn how to engage in discussion online and to become more confident in doing so. Video conferencing can also amplify challenges for students and supervisors for whom English is not a first language, with hearing impairments and/or neurodiverse conditions such as dyslexia, dyspraxia, ADHD or Autism.

We have developed some guidance which we think may be helpful for all students and supervisors, ‘Supervising online: guiding inclusive discussions and interactions’.

We have developed more specific guidance for conducting inclusive discussions with students with Autism Spectrum Conditions, specific learning difficulties and mental health conditions, and with physical and sensory impairments and long-term health conditions, ‘Guidelines for supervisions with disabled students’.
If your students are completing work on paper, you will need a way for them to ‘hand it in’ and a way for you to return the marked version. If you’re using Moodle, you can set up the ‘assignment’ function, see ‘UIS Moodle assignment basic guide’.

Few students or supervisors will have access to a scanner. However, students and supervisors can download apps such as Microsoft Lens, to tidy up photos taken using a smartphone camera and to convert images to pdfs. Similarly, notes taken during supervision can be converted into pdfs and shared with students after the supervision.

Note: it is not recommended to send images direct from smartphone cameras: it is very difficult to avoid problems with angles, light quality – and it is very difficult for supervisors to annotate work submitted in this way.

Pdfs can be annotated using tools available on your platform:

1. Microsoft Lens (integrates with Teams)
2. Drawboard (Windows 10, additional cost)
3. Word (Windows or Mac)
4. Preview (Mac)
5. Google Drive (All platforms)
6. Xournal (Linux)
7. PDF Expert (Mac, iPad, additional cost)

You could also consider recording your (spoken) feedback on supervision work, using a voice recorder on a smartphone and uploading the file to Moodle. In addition, if a session is recorded in Microsoft Teams and the live captions are turned on, a time stamped transcript is created which you can view and edit in Microsoft Stream.

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PLANNING SUPERVISIONS: ii. Supervision work and feedback

KEY POINTS

- What work do students do in advance?
- How do you give students feedback on their work?
When you’re preparing to supervise online, it may help to identify the types of ‘activities’ that you and your students undertake and how you think these contribute to your students learning. Some of these activities will translate fairly easily into video conferencing, and others may be more challenging in themselves, or may pose particular challenges for some students.

For example, during supervisions you might expect some time to be spent in answering questions, explaining important concepts or methods, working collaboratively to solve problems, listening carefully to students, guiding your students in discussing ideas with each other, giving students specific feedback which helps them understand what they have done well and how to progress, encouraging students to reflect on their learning.

We have developed an overview of some of the most common supervision activities and suggested some ways of realising these online. Most obviously perhaps, group discussion between students poses some challenges on a video call, such as encouraging all students to participate or balancing contributions between students. Similarly, there are challenges and work-arounds for supervisors who normally use pen and paper to show workings on problems, or who involve supervisees in collaborative problem solving.

We have highlighted some common supervision activities, tools and methods, along with important considerations for accessibility for disabled students and those with neurodiverse profiles: ‘Common supervision activities, some tools and some alternatives’.
For many supervisors and students, online supervision is a new experience. Under any circumstances, developing new approaches can be unsettling. There are many reasons for trying to exchange and test ideas and questions with others:

- Try to share questions, ideas and maybe resources with fellow supervisors: doing so could help identify and address problems, could save time, and could even lead to innovation
  - Some colleges, departments or faculties may have discussion forums, by email or within Moodle
  - Alternatively (or as well), you might be able to set up an informal network.

- Try to collaborate with your students: talk with them about what you’re trying to do, ask them about their experiences of online supervision: what’s working for them, what do they think could help to iron out difficulties or enrich their learning?
  - The ‘chat’ function within Teams, or Forums within Moodle, or collaborative editing documents could be a way for students to develop their ideas and share them with you and each other
  - There are plenty of suggestions for ways of getting feedback and ideas from students online. We have included one very basic approach, which can also be illuminating:

**COMMEND AND RECOMMEND**

Basic format: at the start of a teaching session, explain to the students that at the end of the session you will ask them for two brief comments on what they have found helpful and one thing that they think could be changed and why they think this would help. The balance of ‘commendations: recommendations’ (2:1) encourages constructive feedback.

You can decide whether you want to do this ‘live’, during a conference call, or whether you will post the questions below and ask students to respond in their own time.

Be ready to collect your students responses, think about their ideas and then explain at or before the beginning of the next supervision what you’ve decided to do, and why.

**Q1:** Please tell me about two aspects of today’s supervision that you found helpful and briefly explain why.

**Q2:** Please tell me about one aspect of today’s supervision that you think could be done differently and briefly explain why you think this would make a positive difference.
GUIDANCE

• Guiding inclusive discussion and interactions
• Guidelines for supervisions with disabled students
• Supervising and conference calls: setting up your technology and your environment
• Conducting a supervision with Teams
• Conducting a supervision with Google Meet
• Conducting a supervision with Zoom
• Screen sharing and collaborative whiteboard
• DRC comparative assessment video conferencing
• University’s Code of Practice: Reasonable adjustments for disabled students
• Common supervision activities, some tools and some alternatives
• UIS Moodle assignment basic guide
• UIS Moodle assignment guide for students

TOOLS & TECHNOLOGY

• Microsoft Lens
• Drawboard
• Word
• Preview
• Google Drive
• Xournal
• PDF Expert
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We welcome comments and suggestions. If you would like to get in touch, please contact enquiries@cctl.cam.ac.uk.