Ri Online Masterclasses: Guidance for Speakers

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1   Introduction

Masterclass organisers invite adult contributors to attend Royal Institution Masterclasses. Contributors are mainly the volunteers who support the children's learning, either as workshop leaders (Masterclass speaker) or as helpers. All eyes in the room will be on the speaker for much of the time as they lead the students through the Masterclass activities.

> This leaflet gives guidance for speakers on how to plan and run an online Masterclass and how to get the most out of Masterclass volunteering experiences.

We hope you enjoy volunteering at Royal Institution (Ri) Masterclasses, and we thank you for giving up time to support them.

Safeguarding and supervision

Who has responsibility for student welfare during Masterclasses?

There will be a designated supervisor (who has a valid enhanced DBS or equivalent check) in attendance at all Masterclasses, both face-face and online. The supervisor is responsible for the pastoral care and safeguarding of the students. They also take responsibility for the overall running of the sessions and supporting adult contributors.

All adult contributors will need a brief introduction to safeguarding regardless of their supervisory responsibilities – see section 2 below.

Sometimes speakers do take on limited safeguarding responsibilities in online sessions. Your organiser or lead supervisor can let you know whether this applies but the following chart can help you identify your responsibilities: -

TABLE 1. *Do I have safeguarding responsibilities?*		
Have you been asked to supervise students in a breakout room on your own?	YES	NO
Will the host of the online session make you co-host to share your presentation, resulting in a direct messaging service (DM) being enabled between you and the students?	YES	NO
Do any features/platforms you are using during your session allow you to DM students?	YES	NO
Will you attend more than two Masterclasses in a series?	YES	NO
	⬇	⬇

If YES to any of the above, you will have some **supervisor** responsibilities and need a DBS* check that has been verified by the Ri prior to the Masterclass. Read safeguarding, code of conduct and social media guidance section here: **Online Masterclasses Handbook for Supervisors**	If NO to all above, you are classed as a **helper** from student supervision perspective – you don't need a check. Read safeguarding, code of conduct and social media guidance section here: **Online Masterclasses Guidance for Helpers**

Or accessed via this webpage:
https://www.rigb.org/education/masterclasses/contributor-resources/

Access the following sections:

- safeguarding
- code of conduct

• social media

* *"DBS check" is our catch-all term and includes PVG certificates or Access NI checks.*

If you do not have a current DBS (or equiv.) check and it is not possible to get a new check done before your Masterclass is scheduled, you will not be able to be given access to facilities which would allow you to message students privately. For some platforms, this may mean that you are not able to share your screen. Alternative solutions may include:

- The use of a virtual camera feed such as OBS, which would give this functionality through your video feed

- Asking a supervisor to screen share your presentation for you

Important Ri documentation

Table 2. *Ri documentation for adult contributors*
Webpage for contributors with supporting materials for Masterclass supervisors, helpers and speakers. https://www.rigb.org/education/masterclasses/contributor-resources/
Ri Safeguarding Policies and Procedures https://www.rigb.org/policies/safeguarding-policies
Masterclass Code of Conduct for all attendees https://www.rigb.org/ri-masterclasses-code-conduct

2   Preparing your online masterclass session

Are you new to running interactive workshops or school students online? If so, these are very different to running workshops face-to -face. It is extremely important to maintain a high level of interactivity for students in online Masterclasses. If you would like support with adapting your Masterclass to run as an online session, please get in touch with the Ri Masterclass team on masterclasses@ri.ac.uk.

You could consider attending one of the earlier sessions as a helper - ask your Masterclass organiser or the Ri Masterclass team. You may also be able to pair up with a more experienced speaker to run the session together.

Arrange to join the Masterclass supervisor online earlier than the session start time to check all of your technology works before they can start admitting students. Ask how you can contact the supervisor (DM) during the session to discuss arising issues.

2.1 Timings

Sessions will be shorter than face-to-face Masterclasses and will need to have proportionally longer timeslots scheduled for doing any activities. Check with your local Masterclass organisers

on the length and structure of the session – usually this will be no longer than 1.5 hours, including time for introductions/feedback and screen breaks.

Things might take longer than you expect on online sessions so you should factor this into your timeline.

- Students sharing ideas – it can take a surprising amount of time for them to navigate the software, e.g. to unmute and say something or to share something over the camera.

- interactive activities and using facilities such as breakout rooms can take longer than expected to set up, especially if the number of attendees is large

Manage your time by having sections you can squeeze or lengthen depending on how the session is running. Provide a follow-up email with a summary of the activities in the session and extension activities, so the students can access material you ran out of time for.

You may also want to have some activities for students to do before the session starts, as some are likely to join the session early. This must not be anything you depend on for the rest of the session as they will not all have had a chance to take part.

Leave time for any evaluation at the end of the session.

2.2 Accessibility

Consider how all students can take part in your proposed activities and make this a fundamental part of your session.

Access to basic equipment and resources

Many students will not have access to additional resources or equipment at home, including printers. Design your activities so they can be completed with basic equipment – ideally, paper and pen/pencil. It is likely that a secondary school student will also have a ruler, protractor, compass and calculator. Have alternative methods in case these are not available or ask the Masterclass organiser in advance if they can liaise with the students' teachers to provide materials.

Accessibility needs are likely to be magnified when working online. Ensure that:

- You don't put too much text on presentations

- Your text is large enough to be seen on small screens

- Your colours are easily distinguishable, including for those with the most common forms of colour-blindness

- If you require students to download something (such as activity instructions), you have told them well in advance so that slow connections can cope

- You have versions of your presentation, worksheets and any solutions which can be sent to students during or after your session, if they are having connection issues or missed part of the session for whatever reason.

Accessibility needs

Consider what additional accessibility needs students may have – any additional needs are likely to have been shared with the organisers in advance so you discuss this with them and prepare effectively. What can you do to help those student access your

session? If certain features are not available through the platform being used, what alternatives can you help to offer?

- If a student needs subtitles, can you provide an outline or transcript of what you are planning to say so that this can be shared with the student in question (either directly or with a supervisor of helper adding it to the chat as you talk)? If you are sharing slides, can you use the built-in subtitles through the 'presentation' feature available on several presentation software programs?
- Do you have versions of your presentation or worksheets which can be accessed by those who use screen-readers?

2.3 Platform facilities and online tools

Take time to familiarise yourself with the host platform that the organisers ae using to host the Masterclasses on. Investigate the facilities you might want to make use of, and which can really enhance a Masterclass by making it more interactive, e.g.:

- Breakout rooms
- Chat function
- Screen sharing
- Raise had function
- Reactions (e.g. thumbs up/down to collect responses)
- Whiteboards and annotation
- Polls

Interactivity online tools

You can use other online tools for interactive elements too. However, don't introduce too many new platforms as this makes life harder for you and the students.

 Examples include:

- Polls and quizzes
- Online whiteboards and methods of annotation/idea collection
- Online graphing/object manipulation tools
- Online mathematical tools such as GeoGebra or Desmos

> Please take responsibility for troubleshooting and supporting students using the software during Masterclasses

Arrange for additional platforms to be approved by the Ri via your organiser - the Ri will review potential safeguarding concerns and oversee safe use

- For example, Desmos must have a DBS-checked supervisor logged in to the session as a 'teacher' so that the speaker is not the only one communicating with students via that platform.

- If there are ways for students to contribute ideas, are there the tools to ensure students cannot add inappropriate content anonymously? Will these features work on all versions of the software or be restricted to only some devices?

Consider ease of use, reliability and accessibility features of any additional platforms:

- Does the platform require all participants to register? If so, how easy is this process? What information does registration require?

- Does the platform require a download, and if so, what systems can it be used on? What features are available on the different systems? Does it have an alternative web browser option for those without the download?

- Parents/Carers will need to register accounts for the students to use on any platforms where this is a necessity. The less complicated this is, the more likely that all students will be able to participate in the series. Platforms should be favoured that request minimal information during registration, for reasons of privacy.

- If a platform does require registration or software to be downloaded, this MUST be free for students and their parents/carers to access.

- Will the platform be reliable on a variety of devices and levels of connectivity?

- Are there ways to interact with the platform in a variety of formats – visually, audibly, both video and text?

- What features are available for students with additional needs, such as subtitles, compatibility with screen readers, or large text for in-meeting chat?

Common challenges with online Masterclasses and video platforms

- It's common for school students to keep their cameras off during video conferences, some will be unable or uncomfortable having cameras/microphones on. Don't plan your activity assuming you'll be able to see all students.

- Students access Masterclasses on a variety of devices (computer/phone/tablet, different types and ages of operating systems, etc.). The functionality may be different dependant on the device or software version.

- Some students may have weak or variable internet connections.

- Plan alternatives for students who cannot access certain features. This may involve asking session supervisors to help – for example, typing instructions for students who cannot hear properly, or adding students' ideas to a shared whiteboard if they cannot do so themselves.

Test run your Masterclass and platform

If possible, arrange a test run of the facilities you require with the Masterclass organisers in advance, then you can make any necessary adjustments. Each organisation will have particular settings that they may not be able to change - what works on accounts you have accessed in the past may not function in the same way on the host's platform.

Make sure you know how to set up your presentation so that you can still see the students and access the chat. You may not be able to screen-share if it enables a DM facility and safeguarding rules disallow it (section 2).

Test the platforms you intend to use before your session, making sure that:

- Supervisors know how to use all the tools for safeguarding and content moderation
- You have tested all the features of your chosen platforms that your activities rely on (e.g., screen sharing, moving students to breakout rooms, taking part in polls)
- You have tested the functionality of your chosen platforms on different devices
- Someone in your team has tested the process that students and parents must go through to participate in a series (signing up for an account if necessary, joining a session as a regular participant, viewing / participating in a brief example of an activity)

You could try running your test with some willing volunteers who will try to 'break' the system so that you can troubleshoot any emerging issues. A member of the Masterclass team may also be able to join you and offer advice and additional support.

During your platform test, keep a note of any potential mistakes/key info to share with the students – e.g. the 'leave breakout room' button being very close to the 'leave meeting' button on Zoom, or how to raise hand/post a reaction. Mention these at appropriate points during the sessions to help students use the platform effectively, or add a 'how-to' guide into your presentation.

2.4 Worksheets and activities

Many students don't have access to a printer so try to avoid using worksheets with complex graphics/diagrams.

— Can they draw the diagrams instead?
— You can ask the organisers to get printouts to students directly or via nominating teachers but this may not be possible
— Work with your local organisers to explore the options, or ask the Ri Masterclass team to help with ideas to avoid complex printouts

Also consider that some students will not have a computer/laptop at home and may be accessing the entire session on a mobile phone or tablet, with only that one screen available. You and the speakers will need to plan how you use your platforms, worksheets etc. accordingly, and do not assume that students can see online worksheets and your session screen at the same time.

Make sure your instructions are especially clear and do more testing than you ordinarily would – it is much easier for a student to misunderstand instructions when working online, and more difficult for adults to oversee their work and identify problems.

2.5 Student involvement

Your students will get a lot more out of the Masterclass session if it is interactive.

Plan for how you will involve them in your session, particularly if the group is large. Think about:

- Explain during the session how students can ask questions/contribute ideas. Remind them that not all their video screens will be visible to speakers so any physical raised hands may be missed.

- Reactions can be used as a quick way to gauge opinions (e.g. thumbs up if you've completed this activity)

- Get the supervisors and helpers involved with collating student responses and feeding them to you – they can keep an eye on the chat and if students put their hands up with questions

- If students have been working on activities, consider how they will share what they have done – will they take it in turns to speak, add messages in the chat, or hold up things to their screen to show you? Will this take place in breakout rooms or with the whole group together?

- To avoid echoes and background noise, students (and additional helpers/supervisors etc) should remain muted unless speaking.

2.6 Working with helpers and supervisors

There will be several supervisors and potentially additional helpers to support the students during the session and help things run smoothly. Roles can be allocated before the start of the session – for example, who will be setting up and activating breakout rooms, who will be taking questions from students to pass on to you, etc. If you have anything specific you need for your session make sure the organisers know about it in advance so this can be planned for.

You will also need to be very clear on what supervisors and helpers need to do to support the students, especially in breakout rooms where you will not always be present. Make sure they have in advance:

- Your session materials, so they can familiarise themselves before the session

- Any slides or worksheets they need to share in the breakout rooms

- Clear instructions for discussions or activities they will need to lead, along with any answers and possible extension activities if students finish quickly

- A timeline they should be following (you can let them know of any adjustments during the session).

There may be a separate chat group for supervisors, helpers and speakers to discuss things "behind the scenes" – the Masterclass organisers will let you know if this is the case and how to join.

2.7 Contingency planning

Make sure you have backups for:

- Your own involvement – make sure you know who to contact if you cannot attend and do this ASAP so alternative arrangements can be made.

- Your hardware – do you have an alternative device you could use if something stops working?

- Temporary delays at the start of the session – ensure supervisors have some alternative options if you have difficulties joining and need time to find an alternative solution.

- The software or internet connectivity failing during the session – is there an alternative way for students to access the information you wanted to share?