

Webinar 18th August notes:

How can we deliver an ITE curriculum remotely?

General problem: Universities not remembering that PGs start at the beginning of September. Issues of scale, some of us are very small departments in large universities – others are the opposite - and some universities are using a one size fits all model for timetabling. We are expecting to be the first people back on campus, but little detail is known yet by tutors despite early course start dates. Feel that the media have focused on schools when reopening physical uni campuses is much more of a challenge.

Manipulatives: finding good ways to use manipulatives online is a priority. in face to face sessions only the tutor would have physical equipment; using online manipulatives; using a second camera during online work to show manipulatives; using things in the students' houses; using Padlet for card sorts and 2-D manipulatives - share the Padlet so they can be taken to the breakout rooms and then share screen to show what they've done; Cuisenaire rods on mathsbot; all can have it open and one can display screen and then another can share screen to show what they are doing

Technical issues and online tools: On a laptop or computer splitting your screen so you have two windows open; but this is a problem with small screens and cannot be done with tablets and phones. Instead students might need two devices and good broadband. Wacom-type write on tablets are cheap (£30) and provide ways of writing mathematics accurately. Possible also to use ipad and apple pencil as a second device to use the whiteboard function on Blackboard Collaborate by sharing the guest link. You can also make a screen recording on an ipad with a virtual manipulative via the control centre. Padlet was recommended as was flipgrid
<https://info.flipgrid.com/> (website describes it as a 'video discussion experience')
<http://digitalsheffield.blogspot.com/2020/07/moving-maths-online-handwriting-in.html> This is aimed at maths lecturers, but it will also be handy for us and is written in a really straightforward way.

<http://www.didax.com/math/virtual-manipulatives.html> Free for 20-21

Face to face teaching: thinking carefully about how to use available face to face time to focus on what is most meaningful and will have most impact on learning – for example reviewing and probing with small groups at the end of a topic

Modelling online learning: Having an induction lecture demonstrating the tools that you are going to use (e.g. Kahoot, Mentimeter, Nearpod) and etiquette like hands up and muting. Creating videos on how to use online tools.

Using chat as mini whiteboards to share answers or holding paper up to web cams. Creating own white boards using white paper inserted into plastic pockets and writing on them

Modelling ways of working: How am I approaching the mathematics? Am I telling them? Am I giving an activity for them to find things out? Am I giving a series of questions to lead them to understanding? These can all happen online as well as face to face. But eye contact; positioning yourself in the room; body language need to be modelled live. Online you cannot look at another person so they know it. When online think about the position of the video so that it shows your hands as well as your face, allowing you to use gesture.

(Primary issue) **How to make them feel comfortable about maths** - letting them know it's okay if you don't like or are frightened by maths now; get them to draw themselves and how they feel about maths to help them to open up; Getting to know each other at the beginning is important; pre-arrival site so they can get to know where they come from etc.

Some ideas:

- Set tasks for building home-made visualiser as an early task for all students
- Set tasks to create own sets of manipulatives early on. These are fun things to do that set up an ethos

Grouping: Random name generator (Random name picker) on the phone to group students randomly; helps avoid one person dominating the group and helps you to mix the groups up; face to face people tend to sit at the same table groups each time; Zoom can generate random groups but if you want to use different groups in the session you would need to close these and then open new ones

Some of the challenges include:

- Using a blended approach and how to manage the sequencing of the content as it would not be possible for all students to be seen F2F in the same week
- How to build group identity
- Giving feedback in sessions, and also knowing what the students were discussing when in small groups on task. How could we ascertain that information to support the session to be more relevant?

There's a need for putting thought into how to group in order that students engage collaboratively as early as possible.

- Learning Partners - Paired and encouraged to meet face to face – work towards being together for online taught sessions.
- Groups of 6 breakout to discuss and return (we are practicing this now!). – is this a lot to expect of 1st year Primary Bas?
- Online may be more conducive for dialogue than the campus classrooms due to social distancing regulations.
- Challenges for tutors when online to spot the anxiety that is often apparent (Primary) in the classroom at the start of programme.
- Creating group identity with wearing the same colour t shirt, or dressing up
- <https://www.desmos.com/>
- Asking students to share their work on virtual whiteboards
- Where possible, having 2 tutors working in an online session to support the chat function which seems to be really well used by students

Should we let go of attempting to replicate/model the traditional classroom and work (with the student teachers) to create an effective online learning environment for them and for children/students? Some successes reported from online Summer school at UCL using:

- <https://www.geogebra.org/>

- inserting pause points into online videos to reflect, discuss, feedback using software such as 'watch party' for joint streaming of video
- Asking students to stand up and model teaching and respond to peer questions, reducing the transmission model that is easily fallen into when online.

One group considered the issues of working in isolation as they were the only member of staff teaching Maths in their department and how to overcome this. There is a collection of short videos which can be used with students as 'virtual visiting speakers'. See: <https://www.atm.org.uk/CPD-for-Mathematics-Teachers> . Working across institutions in collaboration to support each other might be of benefit as sessions are going to be online and people can share their expertise remotely. Here is the link to the form for people to add their names to enable collaborations to take place. Please use the link if you can either offer some support for another tutor. If you are looking for someone to do a 'virtual visiting speaker' slot , please use the link and contact someone directly.

<https://drive.google.com/file/d/1gl-ny8K4waA-wVJ00pZSPQxRA91DEFVk/view?usp=sharing>