

– online learning in action series –

Capturing handwritten content using a smartphone

Explaining, or working-through, a diagram, graph or mathematical concept – often on a whiteboard or visualiser - is a feature of many modules. However doing this quickly for online teaching, without the need to learn particular software programmes, is something we wanted to explore further. Here we focus on a simple solution using a smartphone and stand to capture the footage, which can then be uploaded to duo (the VLE).

approach / idea

One of the simplest ways to capture footage, and one that will be familiar to most people, is to use a smartphone. Smartphones can capture high-quality HD video that can be edited and distributed to students via duo. Aside from their availability, smartphones typically have several other advantages:

- autofocus
- optimised lighting
- compact file size

We decided to use the smartphone to film 'overhead', to get a good view of pen and paper and free up our hands to draw out the content. One of the challenges to overcome was how to position the camera and keep it stable while filming the content. To do this we used a smartphone holder that we attached to the desk (details of similar holder in Acknowledgements section). We used a 'goose-neck' holder as this would allow maximum flexibility when positioning the camera. It was secured at an angle that would enable the camera to capture a sheet of A4 paper from above. The paper

was held in place with blu-tack to keep it steady and make sure that if we needed to edit at any point, the paper would be in exactly the same position. The phone was also positioned at a height that would enable the microphone on the smartphone to capture a simultaneous audio commentary. Once positioned we pressed 'record' and set about the drawn-out explanation.

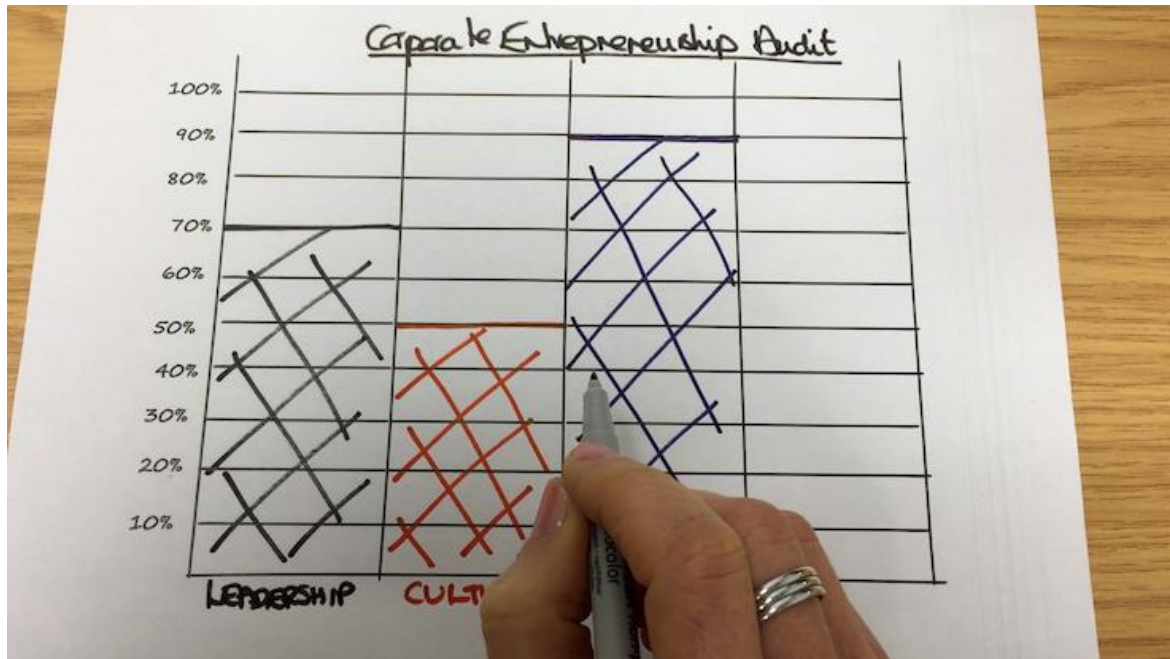
There were several occasions where we needed to go back and re-take a specific sequence. These separate 'takes' were edited together afterwards. Once we had finished the recording, the files were transferred onto a computer. The editing was carried out using Camtasia video editing software and the final film uploaded to duo.

outcome / key considerations

The final film can be viewed here:

[The Corporate Entrepreneurship Audit](#)

The film provides students with a detailed explanation and work-thought of the model in question. It succeeds in replicating what we might typically do in a lecture room. One limitation to this approach is that there is not the chance for students to interact with the presentation or ask questions that might arise while watching. But the advantage is that students can still see the visualisation and commentary, feel a sense of connection with faculty and can re-watch if they miss anything or want to go over any areas.



tell us about your experience

If you've used this method or any other ways of capturing written content for the online environment, we'd love to hear from you – please get in touch with [a member of the Educational Development Unit](#).

acknowledgements

Picture and video link used with the kind permission of Dr Joanna Berry.

[Smartphone holder](#)