Biotechnology and Biological Sciences Research Council

EBNet Environmental Biotechnology

Engineering and Physical Sciences Research Council

Lesson 4 – Types of Video and Composition

Some material modified from @learnsoton

Digital Learning – www.southampton.ac.uk/digital-learning

Collated by the Environmental Biotechnology Network: http://www.EBNet.ac.uk

Lesson 4 Aims

By the end of this lesson, you will have:

- Learned the rule of thirds, with examples
- Received tips on video editing software
- Critically examined three lab experiment videos
- Viewed some on-line presentations which discuss graphs, in order to assess their presentation style/method

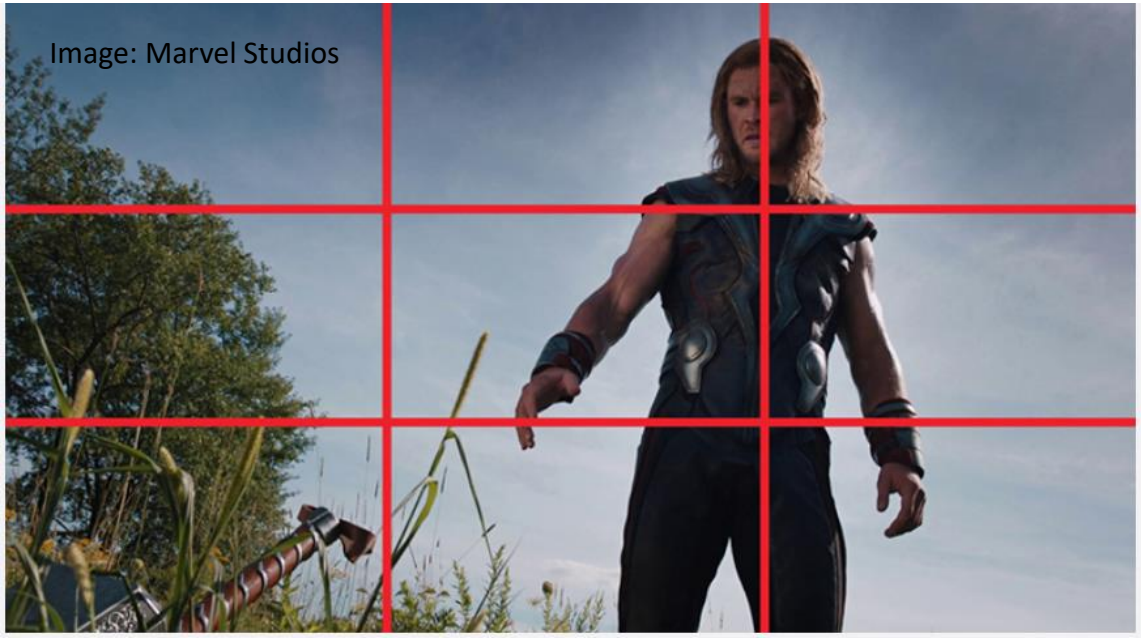
- [*Optional*] recorded yourself talking about a graph using the ‘overhead projector’ method
- [*Optional*] critiqued your recording and the advantages/shortcomings of the method

Composing your shots – Rule of Thirds

Where possible, try to frame your video in accordance with the rule of thirds. Your camera may have a grid you can turn on. This is a 3 x 3 grid, making 9 equal areas. Key elements in the image should be aligned according to the grid – where the lines intersect, or along and within the vertical and horizontal lines

There is lots on the internet about this, but a nice short and illustrative video about the rule (and breaking it!) can be found here: https://youtu.be/A7wnhDKyBuM (4:09) - there is also a short (optional) quiz here (although sign-up may be required): https://quizlet.com/_4g4o70?x=1jqt&i=2vzqzq

On the video (below left), Ralph Noble of NIAB is talking about an ADNet digestate as mushroom compost project: as a key element he is aligned with the vertical blue line, though not quite as perfectly as Marvel Studios man on the right!



Types of Video

There are many types of video, but the ones which are likely to be useful for researchers include:

1. **Selfie** – This is what we have been discussing up until now: filming yourself speaking – see the photo on the left below which illustrates her positioning according to the rule of thirds
2. **Presentation** – this films your work and/or yourself, talking about what is essentially a single slide (i.e. effectively a poster) or several slides as a presentation – more on that in the next lesson…
3. **Lab experiment** – show people how your experiment has been put together and discuss what you have done or are hoping to do, shown in the photo on the right below. Note how the subject's face is a bit too high in the frame
4. **Interview** – where two people are speaking to each other – a conversation between two or more people or an interviewer asking questions and one or more people answering

Software

Editing video is outside the scope of this course but there are lots of options available, simple and complex, paid and unpaid. Learning to use a video editor, even in a very basic way, can add a great deal to your videos. Digital Learning Southampton have some suggestions for free software, if you decide you wish to edit your efforts:

Android - FilmoraGo. Powerful and simple editing software for Android. In-app purchases available, but most of the main editing features are free.

Apple (iPhone, iPad and Macs) – iMovie. Lots of features, easy to use, free. You can shoot, edit and upload, all from the same app.

Windows – Windows Movie Maker was once the standard, but was replaced with 'Windows Photo' (Windows 10) only. Windows Photo lacks power features. There is a free and powerful open source editor called "Shotcut", but it does have a bit of a learning curve.

Exercise 1 –
A critical look at lab experiment videos

On the next slide, take a look at these three videos which were produced for an AD Network Seeding Catalyst Award. At least two of them were edited with Windows Movie Maker. As you watch them, consider the following:

- the sound type (music, indoor speaking, outdoor speaking) and quality. Does the sound add to the video, detract from it, enhance the message or detract from it?
- the video aspect (filming in landscape mode with the phone held sideways or portrait mode with the phone held upright). Which works well? Which works not-so-well?
- the composition of the images and speakers. Are they pleasing or not? Balanced? Following the rule of thirds?
- the content. What do you find interesting about the videos? Why? Which one do you like the most and why? The least? Why?

NOTE: None of these videos are perfect. But when you start to think about what you like and dislike about videos, you begin to *think* about how you can approach what *you* want to say and what *you* wish to show people.

Exercise 1 –
A critical look at lab experiment videos (Cont'd)

1. Biomethanisation (0:54):
   https://www.youtube.com/watch?v=bKZxkmILiYg
2. Characterising marine-based microbial communities for anaerobic digestion (1:50):
   https://www.youtube.com/watch?v=WwNqqv8ZnjY
3. Thermal pre-treatment of granular sludge to enhance AD (4:22):
   https://www.youtube.com/watch?v=KWeDKpLM3a8

Our critique is on the next slide – note that they are only personal observations!

Exercise 1 –
A critical look at lab experiment videos (Discussion)

1. **Biomethanisation (0:54):**
   Introduction slide good. A still of the process flow is useful. No music or narrative, but there is helpful text. Would it benefit from some narrative? Short video, so easy to watch. Nice acknowledgement of funders/project partners. It looks like a video shot by another that has been 'top and tailed' – a good way to utilise footage shot by a project partner.
2. **Characterising marine-based microbial communities for anaerobic digestion (1:50):**
   Lovely scenery intro to a mucky subject! Clear, well-lit shots of material and lab. Note issues with sound inside noise of the lab without a microphone – not necessarily a problem with subtext provided. He then does a voiceover on the other lab shots (i.e. removes the sound from the video and records narrative more clearly afterwards). Interesting and engaging shots of e.g. gas chromatography and some good 'hands' and 'scientist' footage. A still frame added acknowledging the funder. A suitable length for the subject matter discussed.
3. **Thermal pre-treatment of granular sludge to enhance AD (4:22):**
   Interesting introduction which pans across a still photo – a good way to use a photo, but still make it look like a video. Again, a close-up photo of the granular sludge was used, but the video editing software was set to pan upwards, so the viewer could get a close look. Again, a great technique to include a still photo, and the movement provides user engagement. Note that some footage/photos are portrait and some are landscape. How does this affect the viewer experience? I liked the action photo of following the scientist into the lab and his positioning in the frame when the reactors were being assembled. Nice touch to see both male and female scientists. The music would have been fine for, say, a video of 1 minute or less, but was distracting for a longer video, so perhaps some narrative would have been nice. Or silence, as the subtext was very good.

Exercise 2 (Optional) – Explaining a graph

If you need to describe something by writing or filming equations, stack up some books, put your phone on top of them sticking out over the edge, then put a book on the phone and paper on the table below. Watch Joe Brett at Digital Learning Southampton as he explains how to make a DIY overhead projector (0:53) in this video: https://www.youtube.com/watch?v=n1n1u6kR8R8

Using this method, explain some of your research (or anything else you like) with a graph you draw or part-draw whilst filming or have pre-printed. Does a laser pointer, pencil or your finger work best to describe the axes or to illustrate interesting points in the data?

For a refresher on graphs, here are some videos. Full viewing is optional, but examine them to see the technique(s) they are using:

1. How to describe a graph (note he is doing line drawings!) - https://www.youtube.com/watch?v=6RWTQ9Zdhb0 (4:42)
2. Graph types and guidelines (notice he is talking through a presentation, which we will practise later): https://www.youtube.com/watch?v=2RCy5hTxuYA (8:53)
3. Reading graphs – note here he is also doing a presentation, but has a pointer which is quite helpful when he is explaining his topic: https://www.youtube.com/watch?v=C0-eJfOg3nc

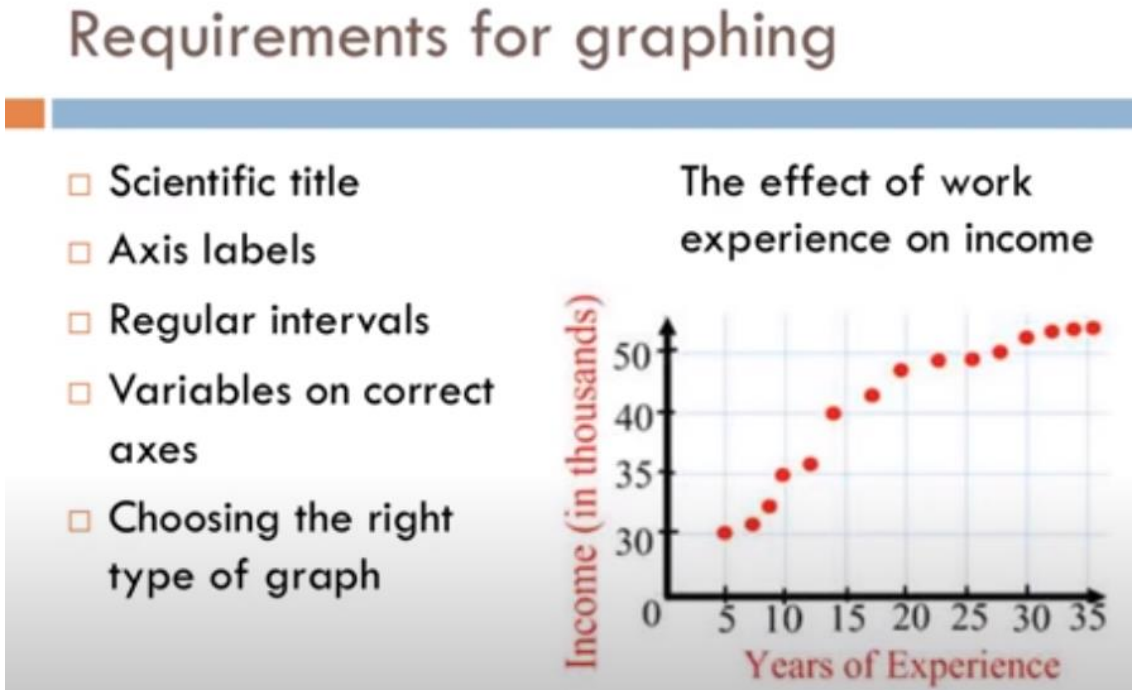
Exercise 2 (Optional) – Critique your video

Take a look at the video you have just made

What do you feel are its strengths and weaknesses? Is your explanation clear? Was your voice clear? Do you need to make some notes or a script, so that your delivery is smoother? Are you feeling more confident and getting better with practice?

We hope so!

Our favourite part of the graph to the right is that the income is in thousands, but it doesn't mention the currency – he just assumes dollars, because there is no other currency, is there? ☺



We hope you've enjoyed this

…and any suggestions for further ECR training on this subject (or any others) are welcome and can be directed to us at:

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