Video Assessment

In the National University of Ireland Galway (NUI Galway), Dr John Murray from Earth & Ocean Sciences, School of Natural Sciences, has been using video actively for several years in the History of Life project that he runs with his students. Since 2011, final-year undergraduate science students taking the module *'History of Life'* have worked in small teams to research a significant theme related to the evolution of life on Earth and to then produce a short documentary-style film on their chosen topic which is then assessed as part of their year's work. The student teams storyboard, script, film and finally edit their films in just six weeks, before uploading them to the History of Life Channel on YouTube.

The vast majority of the students who make these films have no prior training or background in film-making, nor do they have any production budget. These have never proven to be limitations - the students generally relish the challenge and enjoy the relative novelty of the learning experience.

Here are the steps John takes when launching the project with his students each year:

1. It is important to flag this learning activity, which is an integral part of a 5 ECTS module (it forms the entire continuous assessment component), well in advance with the incoming student cohort. This is particularly important as the vast majority will never have experimented with film-making before. Students in the earlier years of their science degree at NUI Galway are made generally aware of the project (during lectures etc). Having the finished student films from previous years available, and in the public domain, on YouTube is a great help in this respect.
2. About two months before the formal start of the History of Life module the incoming students are notified by email about the upcoming film project. They are encouraged to think about who they would like to work with in their class, and what transferable skills are needed in each team.
3. In the first week of the project, Workshop 1 involves team-formation and brainstorming amongst the newly formed student teams to decide what they would like to research and capture on film.
4. As the finished films are uploaded to YouTube, and effectively put into the public domain, the student teams are made fully aware of copyright. This happens right at the start of the process and, rather than being a limitation, it actually encourages them to think very creatively about how they would like to communicate their message.
5. This first workshop also introduces students to the concept of a storyboard and emphasises its importance to the overall production. This is something which media or film-making students would instinctively recognise; however, students from other subject backgrounds tend to be less aware.
6. In Week 2, the second workshop provides the teams with immediate, and very practical, hands-on film-making experience. The student teams create a very short film on a random (and often quite humourous!) topic and learn how to upload their clips to a laptop and edit them together.

7. At the halfway mark in the project the teams formally submit their storyboards and scripts (end Week 3). The module instructor reviews these and meets in person with each of the teams in Week 4 to provide constructive feedback. It is essential that these meetings are positive and encouraging for the student teams. If the project has veered off course in terms of research, scope or vision, constructive suggestions for improvement must be provided at this point – there will still be time to correct things.

8. Filming occurs in Week 5. The student teams are left to their own devices to decide where, when and how they intend to capture their shots. Smartphones are presently the most common and popular choice for filming purposes.

9. The final week is devoted to editing together the final films. The students complete this on their own laptops, generally using proprietary software. The workshop for that final week provides some practical hints and tips for editing, then the module instructor and learning technologists (from NUI Galway's teaching support unit - CELT) circulate amongst the various student teams to provide feedback and advice.

10. The final films are finally uploaded to the History of Life Channel on YouTube. A short film compilation, which outlines some of the steps (in 3-9 above) is located here.

11. In total, 4 of the 6 weeks (approximately two-thirds) of the film project are devoted to research and pre-production. This weighting is entirely necessary in order to ensure that the finished films have depth and substance, and visually work well onscreen.

When it comes to assessing the quality of the students' production, here are the assessment criteria that John and his colleagues use:

- Storyboards and scripts are reviewed and returned to the student teams in Week 4 (see above). These usually constitute 10% of the total score for each film. In terms of assessment, it is necessary for these items to demonstrate research, knowledge and understanding of the chosen study topic. Additionally, they need to demonstrate a clear vision and capacity to communicate a message to a general audience. Very often, in the storyboard review meetings with each of the teams, the question arises "great idea, but *how* will you show that onscreen?"
- 40% of the mark is based on the 'educational value' of the finished films. This is marked by the module instructor, who also delivers all of the lectures about the evolution of life on Earth on the broader History of Life course. They are uniquely positioned to assess this aspect as they will be immediately aware of what new information the student teams might have unearthed during their research (outside of lecture notes) and can assess its broader significance. The largest weighting is attached to this particular assessment category for the History of Life student films –largely because the entire project is an exercise in science communication.
- 25% of the mark is based on 'production value' of the finished films. This category is scored by both the module instructor and a learning technologist from NUI Galway's teaching support unit. This category examines the technical aspects (the nuts and bolts) of how the films were shot, assembled and edited. The weighting might seem a little low, but it must be remembered that the students making these films are not film or media students. Visual expression is the most essential element in terms of helping to communicate their scientific message.
- 25% of the mark is based on 'entertainment value' of the finished film. The finished documentary films are premiered at a screening event in the department (which is a celebration) and this aspect/category is assessed by an anonymous 'test audience' of ten (or more) individuals. They are chosen to be as diverse and

representative as possible, and each individual assessor is asked to simply score (out of 10) how well each of the student film productions held their attention.

- Finally, an element of student peer-evaluation is included in the assessment process for History of Life. The students reflect on their individual contribution to their film project and evaluate their own team's overall performance. If any issues arise (particularly with regards unequal work contributions) marks can be redistributed as deemed fair and appropriate.

When it comes to advising others in using video assessment as part of their teaching and learning portfolio, here are some of the tips that John would like to share:

- Most importantly of all, **trust** in the abilities of your students. They have tremendous capacity for imagination and creativity, many just need an outlet to allow themselves to express themselves. This is almost certainly the case for all students, irrespective of the particulars of the subject area they are studying.
- As a teacher promoting this type of learning activity, **flexibility** has also proven a necessity. The assessment criteria outlined above have 'evolved' over several years, and they continue to be tweaked and modified.
- Many students will never have experimented with film-making before. The relative novelty of the activity can be an attraction for them; however, it can equally be a little daunting, as they are unsure what is expected. It is really important to provide the student teams with as much **practical experience** and **constructive feedback** as possible during all phases of the film production. Positive reinforcement of their skills and abilities pays dividends.