IMPALA partners are experimenting with a range of pedagogical models to address specific challenges in teaching and learning. Here are some examples.

1. To support online learning and to integrate other e-learning activities – a podcast model

The podcast model emerged from the IMPALA pilot study over a semester of 12 study weeks in an undergraduate module in Electrical Engineering, taught online with fortnight face-to-face meetings. Using Blackboard VLE, 30 2\(^{nd}\) and 3\(^{rd}\) year campus-based students studied the module. The professor began weekly podcasts to supplement his online teaching through updated information and guidance on the weekly activities, and to motivate his students by incorporating relevant news items and a fun item such as a joke. The podcasts complemented e-tivities (structured online group activities) based on Salmon’s (2000, 2002) 5-stage model by providing summaries and further guidance to students. Each podcast appeared on the VLE at the beginning of the study week. The podcasts were about 10-minutes long and the format was: an introductory news item; the main content section typically referring and extending this week’s work and referring to last week’s; and lighter weight but fibre optics related items, e.g., a joke at the end, or rap.

2. As extensions to lectures: summaries, additional learning resources, further reading and research

IMPALA colleagues use podcasts as a means of providing additional support for learning through lectures. These include: providing a summary at the end of each lecture with a review of the key concepts and themes presented in the lecture, and a brief introduction to the following weeks’ lecture. These summaries also include advice on further reading and research. For semester 2, colleagues are planning to get students involved in creating lecture summaries as podcasts.

3. As a strategy for teaching large student cohorts requiring support for practical-based learning

This approach was developed by a colleague teaching a Geography Information System (GIS) module within a first year undergraduate course in Geography. The course has been traditionally taught using conventional methods: lectures, laboratory practical, seminars and assessments. The challenges were teaching increasing numbers of students (more than 200 in 2006/2007) and providing guidance on the use of laboratory techniques and software that needs constant updating. When the teaching responsibility was undertaken by a colleague with experience in distance learning, he redesigned the module to incorporate two kinds of podcasts: one, providing summaries of lectures and additional learning resources and the other, to support practical, software and project based learning, replacing ‘paper-based hand-outs with hundreds of screen-shots and graphical illustrations’. Students use these video and audio-based podcasts for revising and in preparation for practical work.

4. To enhance student learning in location-based studies

Geography and Environmental Science subjects feature heavily within the IMPALA project, due to colleagues’ interest in exploring the potentials of podcasts to address pedagogical challenges offered in these subjects. Learning in Geography and Environmental Sciences involves studying the physical, natural, human and cultural aspects of the world. Significant parts of student learning therefore involve activities carried out in the field. Colleagues have developed the following approaches to using podcasts to support student learning in the field.
• Student-created podcasts to record, evaluate and share learning experience.
• Audio and visual guides for field-work (‘iWalks’), e.g., taking students on prescribed routes and providing audio commentary of the phenomenon they observe and instructions for activities to be carried out.
• Audio-visual instructions for using particular instruments and procedures in the field.

5. To bring topical issues and informal content into the formal curriculum

This approach was developed for both an undergraduate and postgraduate modules. In the undergraduate module, the colleagues teach a cohort of more than 100 students from a variety of disciplines who take a core module on the Environment and Sustainability. Students’ prior knowledge and awareness of environment and sustainability issues are varied. The module also needed to take a problem- and inquiry-based teaching approach. Colleagues developed podcasts to meet these teaching challenges. Fortnightly podcasts were developed to: develop learning skills, elaborate on content covered in lectures, and review of useful resources. The podcasts were used to introduce students to current debates on the environment, sustainability and development, from global, national, regional and local perspectives. The content for the podcasts were derived from interviews with practitioners and experts in the field, and from representatives from the local resident and business community.

In the postgraduate module, two colleagues used interview techniques to discuss topical issues (e.g., globalisation, information society) and made these podcasts available for students prior to their seminars as a way of preparing students for their learning activities.

6. To develop reflective and active learning skills

Developing students’ active and collaborative learning skills was the task of IMPALA colleagues at a Centre for Excellence in Teaching and Learning focusing on active learning. Student-generated podcasts were the approach chosen to develop these learning skills during the first semester. Using story-telling as a learning tool (McDrury and Alterio, 2002) students developed ‘digital stories’ during the first week of their study at the university. During the induction week students in small groups undertook a day’s fieldwork in a location relevant to their studies and collected audio and visual evidence of their learning which they put together as a group to reflect their learning.

7. To develop students’ study skills during the first year at the university

These podcasts were developed as part of the teaching and learning strategy within a first year semester 1 module called Introduction to Intercultural Communication, a core module for students enrolled on an undergraduate programme in Linguistics and Communication. Sixty students take this module, all combining English Language with other subjects from humanities, arts and social sciences. The challenges for the colleagues were: creating a cohort identify and teaching collaborative skills, developing learning and study skills for assessments by portfolio. The lecturer developed podcasts to address these issues. The podcasts, each 10 minutes long, were made available on a fortnightly basis to: enhance students understanding of the core concepts and issues, to build a sense of cohort identity, to encourage peer support for learning, to develop writing, speaking and presentation skills. Each aspect was covered by 2-3 minutes sound clips explaining key concepts covered in lectures and seminars, discussions between students and staff on assessment tasks, mentors’ providing study tips. To develop student collaboration, content for podcasts was generated from interviews with current and previous students, and student mentors (senior students) who help with level one students at the faculty academic skills development centre (a drop-in advice centre).

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