Developing core skills with self-assessment and formative feedback

Aims and objectives
The module aims to cover key skills and understanding of the sounds and symbols that constitute the International Phonetic Alphabet (IPA) for a large first year cohort. By the end of the module students are expected to be able to identify sounds, relate them to IPA symbols and describe them appropriately. This approach aims to provide students with opportunity to practice their skills and assess their levels of understanding.

With large cohorts it was necessary to find a way to allow students to test themselves and gauge their own progress throughout the module, revising or practicing further where necessary. This module requires students to identify sounds and relate them to the phonetic alphabet and so opportunities to hear the sounds repeatedly and test their identification of them were important.

Outline
The module was divided into 7 two week themed areas (spanning two weeks of the course) with online support materials (lecture slides, links to externally hosted multimedia resources etc) associated with each. Each area also contained two tests that students could take:

- **Practice tests** – students could take these as many times as they liked to practice and develop their understanding. The tests were made up of 10 randomised questions drawn from a range topics of the theme being tested. This approach encouraged multiple attempts but ensured the full scope of a subject could be addressed on each attempt.

- **Formative tests** – After working on their skills with the practice tests, students were encouraged to attempt the formative tests for each area and the marks were recorded in the Grade Centre. Only one attempt was allowed per formative test and results were used to identify and address students who were struggling or falling behind though no marks were awarded. Formative tests had to be completed as the topic was being covered within the module structure and could not be used for revision.

Methodology
Presenting tests with a randomised selection of questions required several large “question pools” with similar questions types that the tests could draw from. The VLE’s quiz tool supports the development of randomised tests from question pools and over 50 question pools of 15 questions were created for this purpose.

Module instructors developed example questions for each theme and sub topic. Question pools were then populated with questions based on these examples by PG students who were paid...
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using funding from the central E-Learning Development Team. Adaptive release was used to ensure that students had to take formative tests within a specified time frame.

The VLE also supported the deployment of video and audio both as standalone support resources and embedded within test questions.

Reflections / student feedback

Although there was a significant amount of work required in setting up the tests in the first place, once they were established and integrated into the course they made a significant contribution to student learning and supported the class based components of the course. Providing automated feedback on student performance on tests helped to direct individuals within a large cohort and this level and regularity of feedback would not have been possible in person. Student engagement with the tests also changed the quality of subsequent face to face interactions and helped to move those discussions further beyond knowledge acquisition to deeper levels of understanding.

Evaluation indicates that students responded positively to the use of the VLE within this module with 94% agreeing / strongly agreeing that the VLE enables an instructor to provide a wider variety of learning resources for students. High levels of student engagement with the tests reflected the fact that they saw them as developmental and they appreciated the opportunity for practice:

"The way I had to interact with the VLE couldn't have been mimicked in a lecture situation. It was great to be able to take the practice online tests where no-one could see my score...I could do lots of practice until I had got my score up a bit!" - student feedback

Another motivation was clearly the link between the tests and the final exam and the ability to identify and develop areas of weakness:

"The online tests gave me an idea of how well I was doing and if I felt I needed to revise something the resources were also on the VLE." - student feedback

Transferable lessons learned

- The VLE supports formative testing, allowing students to assess their own level of understanding and take remedial action where required.
- Formative testing does not need to be credit bearing for students to engage. Students will be motivated if they see a clear link between online activities and skills development that will support their final summative assessment.
- Further use could have been made of the information on student performance provided by the VLE’s Grade Centre. The ability to aggregate performance on bi-weekly formative testing could have been used to inform subsequent face to face teaching and target specific areas for attention.

Next steps

- Contact Dr Sam Helmuth via email at sam.helmuth@york.ac.uk
- Contact the E-Learning Development Team via email at vle-support@york.ac.uk
- Building formative tests and Multimedia Training available. Sign up through the Yorkshare Training tab.