

## Encouraging first-year students to take more responsibility for their learning through a VLE

Lesley Earle

It is recognised that learning requires the active participation of the learner. Hancock (2007) suggests that activities should be produced "to maximise student involvement in the learning process". Falchikov and Boud (1989) also argue that students should be encouraged to take more responsibility for their own learning. As undergraduate students progress through from Level 1 to Level 3 the expectation is that they will become more independent learners. However, encouragement and activities that actively develop independence can be started at Level 1.

The term 'self-assessment' has been used in higher education for a number of years. Mok et al (2006) define self-assessment as "the learner's evaluation and appraisal of their own competence and performance in the process of learning". They further suggest that self-assessment can be a tool for enhancing the knowledge of learners about their own learning and that learners' thinking can be "made conscious and explicit, with their awareness heightened". Falchikov and Boud (1989) take that further and state that students should be encouraged to judge their own work and learning.

"Self-assessment is the act of judging oneself and weighing up ways of progressing" and can "increase morale, motivation and improve knowledge" (Evans, McKenna and Oliver, 2005). If self-assessment can explicitly be encouraged early in the undergraduate career then these benefits will support the student's future studies well. Pope (2005) clearly links self-assessment and study skills by stating "the skills required for self assessment are the same as those for successful study" and that self-assessment skills will help graduates in their later lives.

A Virtual Learning Environment (VLE) can be a means through which a range of activities can be presented to the students for access outside contact hours. Cooper (2007) suggests that "Personal freedom in managing learning should be maximised". "Students learn best by frequent assessments with rapid feedback" (Haley et al, 2007).

My early use of the VLE was as a repository of some module-related material, such as module guides, teaching materials, module evaluation, assessment information, hand-in dates, location of tests, and assessment specifications. However, this approach did not utilise the VLE in terms of pedagogy or support for learning; it was merely an information source.

Over time, in response to student discussions, lack of engagement, module evaluation and module team review, I developed a more extensive use of the VLE, in particular for my Level 1 Introduction to Databases. This X-stream module includes all the learning materials and solutions to tutorial exercises (with timed release) for use within tutorials. Jones (2007) states: "Problem solving involves complex cognitive processes which require interleaved periods of stimulation and assimilation" and "important concepts should be covered more than once", so for use outside tutorials there are additional exercises with solutions, multiple choice quizzes for each tutorial, and coding scripts containing errors and solutions with reasons for error messages. The assessment specification, assessment submission, feedback and feedforward are also included and the X-stream module is used as a means of communicating with the students outside tutorial sessions.

At the beginning of this academic year, in an attempt to maximise students' involvement in their learning, encourage them to take responsibility for their own learning (Falchikov and Boud 1989), become more independent, and become more aware of their own thinking and learning (Mok et al, 2006), I included a self-assessment section, as a first step towards achieving independent learning, in the X-stream module. It took the form of five questions the students should ask themselves on each week's material. Devising it required careful evaluation of the main concepts or points I wanted the students to understand each week. Some examples are: for the Normalisation tutorial I asked the students to consider "Do I know how to identify repeating groups?"; for the Entities tutorials I asked: "Do I know what the four tests of an entity are and how to apply them?" The students completed the self-assessment outside sessions and the questions were

not revisited during contact hours unless a student had an individual question for the tutor: an approach suggested by Taras (2003) who states that self-assessment does not traditionally include feedback, but can be a formative exercise that can contribute to students being more independent learners.

An increased level of achievement was observed for the module, and in the module evaluation all students said that they either agreed or strongly agreed that the learning resources were helpful and that the module was well organised. A questionnaire on the use of the self-assessment in the module generated 31 responses (around 50% of the students in the block). The students all revealed their identity so that an analysis of their use of the self-assessment could be mapped against their module results and the use of the quizzes on the VLE.

The analysis showed that 50% of the students responding to the questionnaire used the self-assessment. Asked when they used it, a third said they used it weekly, a third towards the end of the module and the rest at the end of the module as revision. Ideally, it was hoped that students would use it as they went along to support their ongoing learning, so it was located in the VLE along with all the weekly material. However, the block structure of delivery of this module in seven weeks did mean that there were only a few weeks between the learning materials being studied and the students using the self-assessment.

Responding to the question of how the self-assessment supported them (multiple responses were encouraged), 75% felt that it helped them identify gaps in their learning. There were also around 25% responses each for "establishing a consistent approach", "helped to appreciate the main points of a session's material", "reassurance that learning was taking place" and, as hoped, "provided a motivational stimulus to engage with studying". A small percentage said they used it as a basis for questions for the tutor, which was not surprising as, to be consistent with Taras (2003) in not traditionally providing tutor feedback, students had been informed that the tool was to be used outside contact hours. All except one student said they would use it again and even five of the students

who did not use it said they would do so in future. An open question asking for other comments about the self-assessment section prompted the following responses:

- "Helps me know how I'm getting on in the module"
- "It was perfect, made me be reminded of some of the tasks I did in class and understand better"
- "It helped with the test questions"
- "It was very useful"
- "Helped me a lot"
- "Recap points of sessions to identify areas to revisit".

The analysis of the students' module results against the use of the self-assessment showed that the average mark for the students who used it was 74% as opposed to the average result for the module of 65%. The average of students who completed no quizzes or self-assessment was 59%.

Table 1: Tests and self-assessment against classification achieved

Classification	With use of self-assessment			Without use of self-assessment		
	0 tests	<=5 tests	>5 tests	0 tests	<=5 tests	>5 tests
1st	5%	27%	24%	9%	13%	22%
2.1	33%	0%	34%	33%	0%	0%
2.2	25%	25%	0%	0%	50%	0%
3rd	0%	0%	0%	100%	0%	0%

Table 1 shows the percentage of students in each classification against whether they used self-assessment and the number of tests they used. Few students who gained a First Class used no tests at all, regardless of whether they used the self-assessment or not. Conversely all students who gained a Third used no tests or self-assessment. Students who gained a 2.1 were more likely to have used the self-assessment, although a third used neither. The analysis shows that students were more likely to achieve a higher grade if they used the self-assessment, although some students did well using the tests only.

It is clear from the questionnaire that many students found the self-assessment useful and that those achieving the better grades were more likely to have used it. Some students who used neither self-assessment nor tests could still achieve a good result, but those who achieved the lowest grade all used neither. Further investigation might indicate why these weaker students did not engage with more of the material. It is clear that most students were taking responsibility for their own learning, but it would require a longer study to ascertain whether students are actually becoming independent learners.

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### Lesley Earle

Senior Lecturer, Innovation North

Lesley Earle was a runner-up in the 2008 'TEL us about it' competition in the 'Exemplary X-stream module' category.