

Disabled students and assessment through a VLE

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Use of Virtual Learning Environments (VLEs) can be adapted and extended to allow a more inclusive learning and teaching experience for all students and provide particular support for disabled students. This guideline presents key issues related to delivering assessment through a VLE, based on perspectives of disabled students and academic staff. Pedagogical, practical and strategic implications have been identified and set in context within discussion and action points to encourage extended reflection on individual, departmental and institutional practice.

Assessment

Assessment through a VLE can include online quizzes, electronically submitted essays or descriptions of an assignment. Benefits include improved feedback, convenience, flexibility and a balance of assessment methods (Bull, 1999). The VLE provides students with a central location for all assessments.

Using a VLE in formative assessment, which provides students with ongoing feedback and shapes progress without contributing to the final mark, allows students the flexibility to complete tasks in their own time, environment and at their own pace. In using a VLE for summative assessment, where students' achievements in relation to intended learning outcomes are measured, exercises and methods must be aligned with institutional policy.

“(Online assessment) gives you an idea of where you're at rather than class exams...it shows you the bits you need to focus more on as well which is good.”

ALERT Student

Recommendations

Pedagogical

- Using a variety of interactive assessments allows students to reflect on learning and identify areas that need more study.
 - By reflecting the curriculum in assessment, teaching and learning activities are directed towards a defined objective (Biggs, 2003).
 - Continual feedback and steering gives students a visible and active support framework. High quality feedback promotes understanding (Ramsden, 1992).
- Online tests allow confidence building and development of self-assessment.

Practical

- Take discipline and learner specific requirements into consideration:
 - Use a variety of different types of quiz components to allow students variation in activities and to accommodate a variety of learning styles.
 - Consider if it is appropriate for students to be able to repeat quizzes.
- Make all assessment details available through the VLE, even if it does not take the form of a quiz (e.g. description of assignments or problems sheets).

Strategic

- Establish a departmental policy about assessment through the VLE in relation to the timing and frequency of assessment and the scheduling of tests.
- Consult institutional policy on summative online assessment.

Pedagogical

Structuring, reinforcing and extending learning

Using VLE based assessment throughout the duration of a course can help students reflect on prior learning and develop an understanding of new concepts. Computer-assisted assessment (CAA) can provide richer data about students' performance than paper-based testing, and can thus carry very rich pedagogical implications (Conole and Warburton, 2005). Providing students with an opportunity to put new knowledge gained throughout a course into practice allows them to apply abstract ideas and develop a basis for further coursework, in line with Biggs' SOLO taxonomy (Biggs and Collis, 1982). Many students, including those with dyslexia, handwriting problems or mobility impairments, cite online tests as being useful in helping them deal with large volumes of information and extensive reading lists from a convenience and a practicality point of view.

Additionally, asking students to take part in regular VLE based assessments provides scaffolding for learning. Scaffolding enables students to forge links between old and new elements of knowledge (Cottrell, 2001) and allows them to interrelate concepts. The scaffolding metaphor exemplifies constructivist and sociocultural educational theory, aligning itself with the work of Vygotsky and his work on the zone of proximal development, the cognitive domain in which he argues that learning occurs (Vygotsky, 1978).

"...while you're doing (online assessments) you're reading and it's a way of making reading interesting and purposeful..."

ALERT Student

"...online assessment, just as a formative thing would be quite useful, and the feedback I got off students this year was they did like having that and they could go off and do it in their own time."

ALERT Staff

VLE recommendation: identify areas where students' understanding is not fully developed though regular use of formative assessments.

Consolidating ideas and establishing focus

By testing knowledge and providing immediate, tailored feedback, students are able to identify areas of their work in need of a more dedicated approach. This can be particularly useful for disabled students in gauging their individual progress and performance and areas in which they may need more support. Feedback and monitoring aids in time management and revision, and encourages a consistency in the momentum of the pace of students' coursework completion. Relevant and clear feedback in line with learning outcomes is vital in making VLE based assessments successful, and the VLE as an adaptive environment for students has the potential to encourage high level learning (Laurillard, 1996). Furthermore, linking feedback directly back to content in the VLE can allow students to consider areas where they may have received negative feedback.

"...if you have quizzes you can go back from a lecture and answer a few questions to see if you've taken anything in, then you get a mark straight away and you can think 'obviously paid attention to that lecture' or 'oh no, I'd better go and learn that again' ..."

ALERT Student

VLE recommendation: provide tailored feedback to the students and allow the student to respond.

Convenience and confidence

The flexibility of self paced learning applies to online assessment. Many students with disabilities will need alternative assessment formats or modifications (Teachability, 2000) and the adaptability that digital resources provides can aid in this, and furthermore is suggested as a means to making provision in the Quality Assurance Agency Code of Practice on Students with Disabilities (QAA, 2004). For those students who have concentration problems, dexterity difficulties or who need more time to complete a task, taking tests online provides an alternative where students can work at their own pace and in their own environment. This fosters confidence and means that students will not feel the pressure of the progress of their peers.

“We have done some multiple choice tests and things on the computer... I think it's great because you can do it wherever you feel comfortable, whenever it fits in with your time.”

ALERT Student

VLE recommendation: allow students sufficient completion time when using assessment.

Practical

Diversifying activity and making provision

Involving students in VLE based assessment tasks presents the opportunity for different types of activity, increased engagement and allows for a variety of different learning styles (Becta, TechDis and JISC, 2003). VLE based assessment can be used as part of “a balance of assessment methods which clearly relate to the skills, abilities and knowledge which need to be tested” (Bull, 1999). As a result of the enormous amount of variance in what can constitute CAA, students' individual ability to complete these tasks must be taken into account (Wiles, 2002).

“...it could be useful for a break from everything else and also it could guide your work... you know, where you're falling down, cos it can tell you what you're getting wrong and then you can build on that.”

ALERT Student

VLE recommendation: use a variety of assessment types in quizzes, including open response text options.

Providing support and reference

VLE based assessments offer effective ways of allowing students access to immediate feedback customised to their own knowledge. However, due to the automated response of the VLE software quizzes, the personal interaction and critique of work is often cited by the student as being an important aspect of the feedback loop which is not in evidence. Hence, support or discussion of the task are appreciated by students.

By making all assessment materials available in the VLE, students only have to access one location for details of assessments. Additionally, tools within the VLE facilitate linking back to previous assessments and feedback, and help build a profile of the student's performance.

“...those assignments are set at the beginning of the year, so I think they should just be put on there at the beginning of the year, like, 'you're gonna have 3 formative essays, 3 summative essays, they'll count for this, they're due around this date...”

ALERT Student

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Providing assessment timetabling in advance will allow those students in need of organizational time management support to be able to plan more effectively. At a departmental level this will also allow students and staff to see peaks and troughs of assessment activity.

VLE recommendation: establish dedicated discussion boards and informal online support groups to raise issues and provide support to supplement VLE based quiz activity.

Appropriate use

Due to the restricted response nature of VLE based assessments that are in a multiple-choice question (MCQ) or multiple-answer question (MAQ) format, some students have criticised the applicability of this medium. The student's approach to the task as well as the nature of the discipline have a marked effect on perception of the relevance of the task.

Appropriate and effective implementation is essential in making sure that online assessment offers “both pedagogical benefits and efficiency gains” (Bull and McKenna, 2003).

“ (Online quizzes) could be useful, if used in the right way. The whole online assessment thing, I think most people don't like using them because they're quite patronising...”

ALERT Student

VLE recommendation: consider the nature of the topic which is to be assessed and use question types accordingly.

Strategic

Aligning with institutional assessment policy

It is vital that the use of a VLE for summative assessment is in alignment with institutional policy and QAA procedures. Institutional assessment policy ultimately governs how VLE capabilities can be used. Though marks can be recorded for formative assignments in VLE software, issues like second marking in summative exercises should be conducted in line with institutional policy.

VLE recommendation: for summative assessment, consult institutional policy on how to use online assessment.

Sharing information

In a number of VLE software packages a “gradebook” facility records students' individual performance. This allows students a personalised view of the marks they have achieved over time, and allows staff to look at all students' achievements and adapt practice to address problem areas.

VLE recommendation: encourage digital submission of assignments to increase flexibility and extensibility of VLE and explore the “gradebook” facility within your VLE package.

Interoperability

Third party extension assessment software tools (eg. Questionmark) can be use in conjunction with VLE software to increase its capabilities.

VLE recommendation: liaise with your learning and teaching support unit to investigate the nature of third party software to enhance the assessment tools within your VLE.

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Discussion / reflection points

Based on the issues considered, below are some discussion points to encourage reflection on existing practice and provision.

Pedagogical

- What benefits do you think immediate feedback has for disabled students?
- How do you account for variations in learning styles and disability in your current approach to online assessment?

Practical

- What types of online assessment do you use and what is the reasoning behind this?
- Is there a specific type of question format which you feel is conducive to assessment in your discipline?
- Do you provide assessment through a VLE? If no, do you have a reason?

Strategic

- Do you work with colleagues in scheduling assessment through the VLE?
- What institutional assessment policy is in place to guide your use of the VLE in summative assessment?

Action points

- Read the CAA Centre 'Blueprint', available at <http://www.caacentre.ac.uk/bp/index.shtml>
- Consult your departmental and university policy on strategic use of a VLE.
- Make contact with your disabled students' support unit, and establish what VLE support is provided.
- Review the extent to which the VLE recommendations within these guidelines are already embedded within your own use of a VLE
- Explore the other guidelines at the ALERT website – www.dur.ac.uk/alert