

CLASS - Report into Pilot Study 2010



It has long been recognised that independent assessment of collaborative group work is extremely difficult to conduct. There has therefore been a tendency to avoid the issue by creating formal assessments which only have regard to performance at an individual level. SQA has overcome that obstacle by producing a solution which offers clarity into individual performance within the context of a group project: CLASS – *Collaborative Learning Assessed by Social Software*.

In the academic year 2007/2008, SQA carried out a groundbreaking exercise into the evaluation of collaborative group work using tailored wiki and blog software. Two centres and approximately 50 candidates participated in this pilot study. The trial was extremely favourably received but it was decided to invest in more sophisticated and robust software before extending the approach to a larger cohort. The new software, based on a highly customised Moodle platform, was delivered for use in Diet 2010.

What follows are extracts from an independent evaluation of the software used in 2010 and conducted for SQA by Sero Consulting Ltd.

1. Executive Summary

This study confirms that the use of social software in a group project has brought significant benefits to students, tutors and markers.

Over the past ten years the value of social software to learning and assessment has become well established, particularly in settings where collaboration and cooperative working is required. A range of studies has shown learning gains for individual students, and improved quality in the outcomes of collaborative work. These studies also point to key factors for success in the use of wikis and blogs. These include: good levels of IT skills on part of students; the establishment of a 'wiki culture' among students and tutors committed to openness and a change of role. They also show that challenges remain in assessing the contribution that individual students make to group work.

This report into the use of social software in a group project reaches conclusions that are convergent with published work in this area. The main conclusion from this study is that each of the stakeholder groups (students, tutors, SQA Markers and SQA staff) realised almost all of the planned benefits from the use of this software. Students appreciated the flexibility offered by the online system to accommodate their learning styles and patterns of working, the transparency of the working of the group and the tracking of their own contributions. Tutors had a much clearer overview of progress in each group, and of the level of contribution being made by individuals. SQA Markers appreciated the ease with which they could access the group projects online and identify the work of individuals for the purposes of marking and grading. SQA staff noted the increased security of having the work of the groups stored and accessible on an online server.

2. Context for the study

Health and Safety in Care Settings is an SQA Course at SCQF Level 5 (Intermediate 2). This course is offered in a small number of Scotland's Colleges, and provides progression to further courses in Care. It is one of a small number of Project Based National Certificate (PBNC) Courses, and consists of three mandatory Units, each of 40 hours duration, and a project-based Course assessment. To achieve the Course award, the candidate must pass each of the Units and also the Course assessment. The candidate's grade is determined by performance in the Course assessment.

The distinguishing feature of the Course assessment is that it is based on a group project. Candidates work in small groups to produce a report based on a scenario described in a brief. They must first select a brief from a choice of three; interpret the brief; plan the subdivision of tasks in the project; carry out research and create the product that matches the requirements of the brief. In addition, each candidate produces a plan for the project and writes an evaluation of his/her performance. The assessment challenge is how to determine the contribution that the individual candidate has made to the group project, so that a grade can be allocated to the candidate. Traditionally in group projects of this nature, the favoured approach is to have the candidate maintain a diary of work that records their activities and contributions. These diaries have proved difficult to use for assessment purposes as they tended to provide sparse information about progress and the individual's contributions.

In 2007, as part of its e-assessment strategy, SQA introduced the use of social software as an alternative means of capturing the contributions made by individual candidates. Two colleges volunteered to participate in the pilot and around 40 candidates used blogs and wikis to carry out the group project for the *Health and Safety in Care Settings* Course assessment. The subsequent evaluation of this pilot led to a recommendation that this approach should be made available to all centres offering the PBNC in *Health and Safety in Care Settings*, further to improvements to the software and procedures.

SQA subsequently commissioned a study to identify an open-source system that would be capable of meeting the SQA requirements for social software. Moodle was selected as an appropriate platform for the SQA development and an external provider, Resource Initiatives Training (RI Training), was subsequently appointed to create CLASS (Collaborative Learning Assessed by Social Software) on a Moodle platform. RI Training selected the Open University (OU) blog and wiki module for implementation because Moodle's own core wiki and blog did not provide the functionality demanded by the CLASS project. SQA would like to give credit to the Open University's wiki and blog.

3. Implementation

The development phase required the creation of four customised Moodle sites to satisfy the requirements of SQA's development specification. These were:

- ◆ The development site where initial ideas were drafted before being established on the test site.
- ◆ The test site that supported the testing of site functionality.
- ◆ The sandbox site for users to access and develop their understanding of Moodle. It also provided access to some bespoke learning resources introducing the knowledge and skills needs to work with Moodle.
- ◆ The live site used by students to create and present their evidence for assessment.

The CLASS Moodle sites were hosted and maintained by RI Training for the duration of the project. The creation of these sites required customisation of Moodle, as well as the installation of the OU wiki and blog. The customisation was necessary because of the requirement that each wiki and blog should have restricted access by only the group members, and that each college tutor should have administrator access to groups in their own college only. The resulting highly-customised Moodle system was further improved in response to user feedback post-implementation.

SQA's e-assessment team launched the new CLASS tool for use by colleges in session 2009/10. Information about CLASS was circulated to the 8 colleges who were offering the *Health and Safety in a Care Setting* Course, along with an invitation to attend a further information and training workshop. As a result, 6 of the colleges decided to implement CLASS with their student groups, involving around 120 candidates (see Appendix A). For most of the colleges, the group project began around January after the candidates had completed the work of the 3 mandatory Units.

The Course tutors and the candidates were provided with secure access to CLASS and details of their groupings for the projects provided to SQA to set up the group blogs and wikis.

4. Objectives in using CLASS

A candidate is required to work with two or three others in a group to plan tasks, carry out research and then jointly develop a product that matches their selected brief. The candidate needs to keep a record of activities they have completed as an individual, and share it with the group through the blog. These records form part of the candidate's assessment evidence, and should also help them plan their evaluation report. The candidate needs to add his/her contributions to a product that will meet the requirements of the brief (e.g. a care plan or an information poster). The wiki provides the means for doing this, and also keeps an authenticated record of the work that the candidate puts into the group project by providing a timeline of the entries and amendments made by members of the group.

The tutor needs to be able to keep track of the progress being made by each group towards fulfilling their project brief. The group wiki page shows the state of the project at any time and informs the tutor of the most recent additions/changes to the product being developed by the group. In addition, the blog provides a view of the set of activities that are ongoing (research and information gathering) and also a channel of communication for the tutor to encourage or confirm the efforts of the group. The tutor also needs to have a reliable means of authenticating the individual contributions of candidates. The secure login procedures for the group blog and the group project wiki provide a means of doing this efficiently and effectively.

At the Markers' meeting (held in June 2010), the Markers marked the group project for each candidate, based on the group's interpretation of the brief, the cohesiveness of the project (ie how the group has linked together the plan, its research, and the production of a solution to the brief), and the extent to which it demonstrates consolidation and integration of knowledge. Markers used evidence from the candidate's entries to the blog and wiki to determine the extent to which they had met the requirements of the grade criteria. The

CLASS software allowed markers to browse the blogs and wikis and access information about the contributions made by individuals.

Tutor Responses

The tutors agreed a set of statements about the benefits from the use of CLASS. These included:

- ◆ identifying the strength of contribution from each candidate
- ◆ ease of monitoring progress by each group
- ◆ helping to attest to the authenticity of candidate work
- ◆ helping candidates complete their project on time

They were strongly positive that CLASS had helped them monitor the progress of each group, track each candidate's contribution and provide appropriate feedback. They singled out particular benefits to them of using CLASS, such as students more regular attendance in class (to access the computer systems), and better working together as teams.

SQA Markers' Responses

Markers agreed that it had not taken them long to become familiar with the use of the software to access candidate wikis and blogs and to move easily between the wiki and blog to track evidence. They appreciated the opportunity to share experiences in carrying out online marking of candidates' work, and the contribution that this would make to improving their own practice in using CLASS with their students.

Markers all agreed that they had had sufficient training to allow them to mark online scripts and that there were no technical difficulties of any significance. All agreed that the use of the software helped them in performing the necessary procedures for marking.

Markers were uniformly of the view that presenting candidate evidence in this online form was a fairer form of marking in that it allowed Markers to track which member of the group had made which contribution. They commented that '*there was no hiding place*' for students who were not making a real contribution to the project. On the other hand, they were pleased to note that candidates who had been absent from college through circumstances were able to continue to contribute to the group project, which would be difficult to achieve using traditional approaches.

The Markers noted that the '*live*' nature of the blog entries had given them a much better sense of the dynamic nature of each group project, with students making entries '*in their own language*'. This was in contrast to the traditional diary or log used in this group project, where entries were either too brief to be useful or (as was often the case) retrospective rather than synchronous. The online system allowed the Markers to quickly establish the extent to which team working was evident in the groups.

However one issue that was highlighted was a practice in some groups of leaving the process of updating the wiki to one or two members of the group. The wiki summary activity reports would show that one or more members of the group did not appear to have made

much contribution, whereas in reality they had been active in finding and analysing information. Where this had become apparent, Markers had been able to establish the contributions that individuals had made either from blog entries or hardcopy evidence from the centre.

Another aspect of the evidence from the wiki that required judgement on the part of the Marker was that some groups had performed their editing in the wiki itself, while others had tidied up their information 'off-line' before importing into the wiki. The volume of wiki activity was therefore substantially different between these approaches.

Markers had noted that candidates using the CLASS software produced evidence that was much more focused on the aims of the project brief – such as the production of an information leaflet. For these candidates, the development phase also appeared to be more concise, and the language used in their evaluation reports tended to be more positive.

Markers noted that candidates who had used the CLASS wikis and blogs tended to be more reflective in their evaluation reports than those who had not. The blogs and wikis also provided evidence of candidates analysing their own research, editing information so that only the relevant parts remained. Candidates using traditional recording methods tended to provide printed copies of all the material that they had downloaded from the internet.

Markers noted that the online collection and storage of work greatly increased the security of candidate evidence both before and during the Markers' meeting. Since scripts were not transported from centres to SQA, from SQA to the marking location then back to SQA, an element of risk was removed. The practice was also more environmentally sustainable.

Markers commented on the change in skillset evidenced by candidates in their work. In the paper-based evidence candidates demonstrated their skill in designing and displaying posters and leaflets. Candidates using the blogs and wikis demonstrated their skills in:

- ◆ the use of IT
- ◆ researching, analysing and summarising evidence
- ◆ communicating: they showed good understanding of audience in communication by using more formal language in the wiki than they did in the blog

Colleges participating in the use of the CLASS system Diet 2010

<i>College Name</i>	<i>No of candidates</i>
Adam Smith	26
Ayr	20
Borders	18
Cardonald	34
Kilmarnock	13
South Lanarkshire	51

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- ◆ Tutors and students who participated in the CLASS project in Diet 2010
- ◆ SQA Markers who carried out external assessment of the wikis and blogs
- ◆ Sero Consulting Ltd. for producing the full Evaluation Report into CLASS

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