JISC Final Report

ASSET: Moving Forward Through Feedback

Institutional Innovation Programme 7/08

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Executive Summary

Providing high quality and timely feedback to students is often a challenge for many staff in higher education as it can be both time-consuming and frustratingly repetitive. From the student perspective, feedback may sometimes be considered unhelpful, confusing and inconsistent and may not always be provided within a timeframe that is considered to be 'useful'. The ASSET project, based at the University of Reading, addresses many of these inherent challenges by encouraging the provision of feedback that supports learning, i.e. feedback that contains elements of 'feed-forward', is of a high quality and is delivered in a timely manner. In particular, the project exploits the pedagogic benefits of video/audio media within a Web 2.0 context to provide a new, interactive resource, 'ASSET', to enhance the feedback experience for both students and staff.

A preliminary analysis of both our quantitative and qualitative pedagogic data demonstrate that the ASSET project has instigated change in the ways in which both staff and students think about, deliver, and engage with feedback. For example, data from our online questionnaires and focus groups with staff and students indicate a positive response to the use of video as a medium for delivering feedback to students. In particular, the academic staff engaged in piloting the ASSET resource indicated that i) using video has made them think more, and in some cases differently, about the ways in which they deliver feedback to students and ii) they now see video as an effective means of making feedback more useful and engaging for students. Moreover, the majority of academic staff involved in the project have said they will continue to use video feedback. From the student perspective, 60% of those students whose lecturers used ASSET to provide video feedback said that "receiving video feedback encouraged me to take more notice of the feedback compared with normal methods" and 80% would like their lecturer to continue to use video as a method for providing feedback.

An important aim of the project was for it to complement existing University-wide initiatives on feedback and for ASSET to become a 'model' resource for staff and students wishing to explore video as a medium for feedback provision. An institutional approach was therefore adopted and key members of Senior Management, academics, T&L support staff, IT support and Student Representatives were embedded within the project from the start. As with all initiatives of this kind, a major issue is the future sustainability of the ASSET resource and to have had both 'top-down' and 'bottom-up' support for the project has been extremely beneficial. In association with the project team the University is currently exploring the creation of an open-source, two-tiered video supply solution and a 'framework' (that other HEIs can adopt and/or adapt) to support staff in using video for feedback provision. In this way students and staff will have new opportunities to explore video and to exploit the benefits of this medium for supporting learning.

1 Background

The importance of assessment and feedback to the learning process is well known (Sadler, 1983; Biggs, 2003a,b; Gibbs & Simpson, 2004; Juwah *et al.*, 2004). High quality and timely feedback can engage and motivate students and help them improve performance in subsequent assignments ('feed forward'). However, providing this type of feedback and maximising student engagement with it can be a real challenge. For staff, providing feedback can sometimes be very time consuming, repetitive and inefficient. From the student perspective, feedback may be provided in a manner which is deemed to be too late to useful, sometimes unhelpful and inconsistent (Glover & Brown, 2006). The National Student Surveys have provided a public forum for students' concerns about feedback and these data have consistently scored the 'assessment and feedback' category below all other categories since the surveys were first launched in 2005 (HEFCE National Student Survey).

Research has shown that there are benefits in delivering feed-forward and feedback in video and audio formats. For example, it has been suggested that 'the most effective forms of feedback provide cues or reinforcement to learners; are in the form of video-, audio-, or computer-assisted instructional feedback; and or relate to goals.' (Hattie & Timperley, 2007). In addition, tone and expression of the human voice can make feedback more engaging for students (Rust 2001; Merry and Orsmond, 2008) and the use video and audio can also accommodate different learning styles, whilst overcoming some of the issues associated with 'traditional' methods of feedback, such as illegible handwriting (Orsmond *et al.,* in prep.). Using interactive video media, the project has therefore explored ways to improve feedback provision and to enhance both staff and student engagement with feedback through the development of a new Web 2.0 resource, 'ASSET'.

The use of Web 2.0 technologies within ASSET has provided students with new opportunities to develop formal and informal learning communities, which aligns with the pedagogic approach of 'learning by doing' (e.g. Kolb, 1984; Gibbs, 1988). In particular, ASSET supports students' engagement with feedback and has provided a new forum for students to 'interact' with one another in relation to the feedback they have received on their work. It has also created new opportunities to establish feedback-related communities of learning between students and staff, thus completing a 'feedback loop'. This is important because, just as communication is much more effective when it is two-way, feedback (and feed-forward) becomes more effective when it takes the form of a dialogue between learners and assessors (Yorke & Longden, 2008). The use of Web 2.0 in learning, is also supported by recent JISC statistics (IPSOS Mori, 2008), which suggest that there are possibilities for mixing 'social networking' with academic studies. These data show that students are regular users of social networking sites on entry to university, with 73% of those surveyed using social networking sites to discuss coursework with others. In addition, these data revealed that despite students being able to recognize the value of using these social networking sites in learning, only 25% felt encouraged to use Web 2.0 features by tutors or lecturers. It is therefore timely to embrace students' willingness to use this new technology and to offer them innovative ways of actively learning for themselves and from one another.

Students are regular users of social networking sites but they are also very familiar with the use of video with over 75% of students viewing videos/live TV on websites and over 55% uploading video or photo content to the Internet (IPSOS Mori, 2008). As well as complementing other forms of feedback we anticipated that the use of video in the ASSET project might also speed up

feedback delivery for staff whilst offering staff new opportunities to be more creative in their approaches to feedback provision.

The ASSET project addresses many of the challenges inherent in ensuring that feedback supports and encourages learning. We have, for example, encouraged increased awareness amongst staff of what is referred to as 'feed-forward'. Feed-forward can focus students' attention on what is required of them in a particular assignment, but it can also help them engage more with the feedback they are given if they can see where they are meeting the set assessment criteria and where they didn't do quite so well (Sadler, 1983; Higgins *et al.*, 2001; Duncan, 2007). This has been achieved by the project in a number of ways. For example, by staff articulating assessment criteria in brief video clips to explain what they are looking for in a particular piece of work. For an example of this see the ASSET video Criminal Law Introduction and Essay. In addition the project has encouraged staff to consistently incorporate feed-forward elements within their feedback to students, for example, through the creation of video clips that focus students' attention on areas that will lead to enhanced performance in future assignments; for an example of a feed-forward video see Environment and Sustainability Feedback.

2 Aims and Objectives

The aims and objectives for the project were as follows:

2.1 Aim

- To evaluate available Web 2.0 technologies to support the development of an interactive feedback resource, 'ASSET', which will provide an innovative resource for engaging students and staff with assessment-related feedback within the University and across the HE sector through the use of video media.

2.2 Objectives

- To ensure that the ASSET resource follows open standards with the capability of being fully embedded within the University.
- To determine the most suitable Web 2.0 technology for 'building' ASSET.
- To explore the issues surrounding the use of video and audio clips as a mechanism for feedback provision from both staff and student perspectives.
- To embed the use of video as a core feedback resource for students and staff within the University.
- To disseminate information about ASSET within the University and across the wider HE sector, in particular to position the University as a lead institution in the development of interactive feedback resources.

3 Methodology

3.1 Strategy and methodology

- To address the project's aims the following activities were undertaken:
- A review of Web 2.0 technologies available at the start of the project (2008) to provide a rationale for the chosen option upon which ASSET was to be 'constructed' (See ASSET technology report).

- Identification of the issues surrounding the use of video and audio clips as a mechanism for feedback/feed-forward provision from both staff and student perspectives.
- Agreed and defined the principles for ASSET structure and content (including audio/video file format).
- Agreed evaluation (including self-evaluation) and dissemination strategies.
- Populated the ASSET resource and piloted its use with academic staff and students at the University of Reading.
- Regular project dissemination activities within the University and across the HE sector.

Activities that have been ongoing throughout the project include:
- Project self-evaluation.
- Training and support for staff and students using ASSET.
- Production of FAQ-style support videos for using ASSET.
- Networking within the University to gain support for sustaining the use of video feedback. Critically this has included 'top down' (i.e. Senior Management) and 'bottom up' (i.e. academics and T&L support staff) approaches to networking and dissemination activities.
- Networking with the JISC (and related JISC projects) and wider HE communities and with colleagues involved in other feedback-related initiatives across the UK.
- Weekly meetings of the University of Reading ASSET Team.
- Regular face-to-face team meetings and team conference calls.
- Regular Project Steering Group meetings.
- Maintenance of the ASSET project website (www.reading.ac.uk/asset), which provides an overview of the project, alongside project outputs.
- Creation of an ASSET blog to assist with project management and internal and external (with JISC) dissemination (public postings can be viewed via the ASSET website).
- Regular dissemination of project activities within the University.
- Dissemination at national and international T&L events (see the ASSET website for further details).
- Completion of reports and associated documentation required by JISC.
- Pedagogic research for peer-reviewed publications (three papers currently in prep. For peer-reviewed journals).

3.2 Technical issues addressed

Populating the resource – The content of the ASSET resource was initially developed by the project team. As the project developed, University staff involved in the pilot have increased the number of videos available for viewing.

Interoperability – ASSET was built using Web 2.0 software and the choice of the proprietary CORE software on which it is based was determined by a review of available technologies at the time (ASSET technology report). In particular, CORE software provided most of the functionality that was required within a timeframe that enabled us to commence the pilot with academic staff and students in the Autumn Term 2009. A two-tier solution for the use of video feedback is currently under development (see below) and will be open source and therefore freely available for other institutions to use (further details are given in section 4.1).

Maximising engagement across the University and HE Sector – The aim was for ASSET (and in particular, the use of video media) to become a key learning resource for both students and staff across the University. The project team has worked closely with academics, the University's Head of Information Technology Services (who sits on the Project Steering Group), Faculty Directors for Teaching and Learning, the Director of the Centre for the Development of Teaching and Learning and the Pro-Vice Chancellor for Teaching and Learning to maximise engagement opportunities and to support future developments in this area. We have now developed a sufficiently extensive 'repository' of resources and expertise within the ASSET team to support future developments in this area both within the University and across the sector more generally.

Sustainability – An important outcome from the project is the expressed desire by most of the academic staff involved to continue using video in their teaching in the post-JISC funding phase. Responses to our student post-ASSET use survey also suggest that they are very keen for their lecturers to continue using video as a medium for delivering feedback. Given the University-wide support for the project we have explored options for future sustainability. In particular, to maximise the chances of success in this regard we have explored the possibility of embedding ASSET as an 'element' within the University's existing VLE, Blackboard. In association with the ASSET team the video delivery (backend) now being developed by the University's IT Service is based on a video dropbox supported by the University's streaming server. The frontend will integrate the dropbox feature with a browser embedded video player providing playback functionality within Blackboard. To allow for a fully open source solution, which other Universities can use, a Moodle front end will also be constructed. This approach will facilitate the adoption of video media as a familiar and 'standard' mechanism for supporting feedback/feed-forward provision for both staff and students. Additionally this solution, based on a streaming backend and web-based frontends, corresponds with how Web 2.0 services are usually developed. It will be possible to embed videos as plug-ins and widgets in new services without the need for developing a completely new solution each time the need arises. These 'frameworks' and associated support materials will be developed over the coming months and will be made available to the sector via the ASSET website.

3.3 Scope and boundaries

- The ASSET resource contains a wide range of feedback-related video resources, which are divided into University-level (i.e. generic) and Module-level (i.e. module- and discipline-specific) 'playlists'.
- Moderation of ASSET resources has been conducted by module co-ordinators (academic staff) who have piloted the resource to date.
- To maximise and promote institutional 'buy-in' the project team actively and regularly promoted ASSET through existing T&L communities within the University. These include the Faculty and School Directors for Teaching and Learning, School e-Learning Co-ordinators and Senior Tutors, and through the activities of the University's Centre for the Development of Teaching and Learning (CDoTL) and Centre for Staff Training and Development (CSTD). These promotional events have included workshops, poster presentations, briefing papers and 'show &tell' sessions (See Internal Events on the ASSET website).

3.4 Critical success factors

A number of critical success factors were identified for the project, all of which were successfully met:

- Sufficient 'buy-in' from academic staff across the University to pilot and develop video resources within ASSET.
- Development of a sufficiently large and diverse suite of video resources within ASSET.
- Engagement of the wider staff and student communities across the University.
- Demonstrable measurement of increased engagement with feedback of both staff and students using ASSET.
- Ensuring the project complemented the University's existing feedback-related projects and approaches to e-learning.
- Ensuring the outcomes of the project were sustainable beyond the period of JISC funding.
- Increased awareness within the University of the role of Web 2.0 technologies, and in particular the use of video media, in supporting learning through assessment-related feedback and feed-forward.
- Institutional 'buy-in' at the Senior Management level, including the Pro-Vice Chancellor for Teaching and Learning and the Faculty Directors of Teaching and Learning.

4 Implementation

4.1 Choice of software

The first aim of the project was to develop the ASSET resource in a format that could be easily and quickly used by both staff and students. The team agreed that the choice of software needed to meet a number of requirements, namely:

- The software had to be designed for video, as the use of video (as opposed to audio) had implications for storage capacity and delivery related to larger file sizes.
- User generated content was viewed as very important in forming the 'feedback loop' and thus the software had to allow user generated content (with staff moderation).
- A user-friendly layout with a search facility needed be an integral part of the resource.
- Controlled access of the ASSET resource was seen as crucial to the success of the project. Our early discussions with academic staff indicated that they did not want their feedback videos to be accessed by students not registered on their modules. It was also thought that unrestricted access might also affect the nature of the engagement and feedback that students were willing to provide. This meant that access to the ASSET resource would require a University login and password with access to particular modules restricted to staff and students registered on those modules.

A review of different technologies upon which to develop ASSET was therefore conducted by one of the project consultants (see ASSET technology report) and subsequently discussed at a project team meeting and Steering Group meeting in January and February 2009, respectively. In particular, the pros and cons of Clipshare, Blackboard, SharePoint and CORE were discussed. The CORE software already fulfilled many of the project's requirements but required further development to include the controlled access and search facilities. The CORE software licence, with support, was therefore purchased for one year with the playlists and controlled access provision to be included in the contract.

The sustainability of the ASSET resource and, in particular, the use of video as a new and creative medium for supporting feedback provision across the University have been key issues for the project. Sustainability was thought most likely to occur with an open source 'version' of ASSET. This therefore led to consultations between the project team and the head of ITS (a member of the Project Steering Group) to create an open source two-tiered video supply solution. This has been viewed by the team as a welcome development to ensure sustainability in the use of video for T&L at Reading as well as creating a 'framework' that other Higher Education Institutes can directly adopt and/adapt. This represents an additional 'work package' that the team have been able to incorporate within the period of JISC funding.

4.2 Recruitment of academic staff to the ASSET Project

An essential component of the project, and something we believed would be particularly challenging, was recruiting academic staff to pilot the use of video for feedback within the ASSET resource. Academic staff were initially approached through the Directors of Teaching and Learning at both Faculty and School levels to ask if they would be willing to participate in the project. This was achieved by presenting a briefing paper on the ASSET project at the Autumn Term 08/09 Faculty Boards for Teaching and Learning. In particular this paper set out the aims of the project and indicated the potential benefits to colleagues if they took part; importantly it gave a clear indication of the high level of support that colleagues could expect. It was envisaged that groups of staff from either Schools or Departments would be involved in the pilot, rather than individual staff from disparate areas, so that colleagues could support each other in the use of the resource. At the Faculty Board meetings the names of interested colleagues were collated and these staff were then invited to a project workshop in March 2009. This workshop introduced the ASSET project and more specifically demonstrated the potential uses of video for feedback provision (see March 2009 Workshop Presentation). It is important to note that up to this point the use of video (or indeed audio) as a medium for providing feedback had not generally been used by staff so it was an entirely new concept for most. As a result of this workshop colleagues from five Departments/Schools expressed an interest in taking part in the project and start-up meetings with these staff then took place in June and July 2009. These meetings allowed staff to ask the project team any technical or logistical questions and enabled them to clarify their technical requirements in terms of video equipment, e.g. web cams, flip-videos, camcorders, tripods etc.

Thirty two staff from the Departments/Schools of Law, Real Estate and Planning, Fine Art, the International Foundation Programme and Chemistry, Food and Pharmacy agreed to participate in the project. These staff represented a diverse range of disciplines, with many of their modules having high numbers of students. In addition to these five Departments/Schools, the Centre for Applied Language Studies (CALS) were very interested in using video in their feedback provision. However, due to the constraints of their teaching timetable this had to be conducted during the summer of 2009. Six staff from CALS took part in this 'pre-pilot'.

It is important to note that we specifically asked all staff to focus on the provision of generic feedback to students via the ASSET resource. This decision was taken because given the pilot nature of the project it was felt that this was less likely to cause concern amongst staff in terms of the amount of time it might take to create the feedback videos. Therefore, the intention was for staff to use videos within ASSET to supplement their other methods of feedback provision (i.e. to ensure students also received individual feedback). Staff were given an entirely 'free reign' to

use the video media in any of their modules and in whatever ways they felt were most suitable for their respective students and methods of assessment.

4.3 Internal dissemination

To keep staff informed about the ASSET project and its progress, the team hosted regular dissemination activities. For example, articles were written for the Summer Term 2009 and Spring Term 2010 issues of 'Teaching Matters'(Issue 20 and Issue 22), the University's teaching and learning magazine, which has a circulation of 2,500. Briefing papers were sent to each of the five Faculty Boards of Teaching and Learning across the 2009/10 academic year. An oral presentation was given by the ASSET team at the School e-Learning Co-ordinators meeting in June 2009 and at the University of Reading's Annual Learning and Teaching Conference in July 2009 (see ASSET website Internal Dissemination Presentations). A further demonstration session was organised for staff in the Centre for the Development of Teaching and Learning (CDoTL) in July 2009. Members of staff involved in the project were also invited to engage with the project blog. A number of additional internal dissemination events will take place in the Summer Term 2010, including a workshop within the University's new T&L 'Enhancement Week'.

4.4 Development of the ASSET resource

Progress on the software development required for the ASSET resource took longer than envisaged and the resource was not fully available to staff and students to use with the features of controlled access, different levels of playlists (University, module and personal) and search facilities until September 2009 (we had hoped that it would be available by June 2009). Different users are members of different playlists depending on what Schools they come from and in some cases even what modules they take. Users can also create personal playlists ('my playlist'), which can help them to easily store and find their favourite videos, for example, when revising or working on new assignments.

A number and diversity of videos were developed for the University playlist* (anyone who logs onto the ASSET resource can view these playlists). These include:

- Introduction to the ASSET resource for both staff and students;
- Introductory videos made by members of the ASSET team;
- Short instructional FAQ training videos to support staff and students using ASSET;
- Short videos by the University's Study Advisers on subjects including 'making the best use of feedback'.

CDs containing copies of the University playlist videos were made for external-facing dissemination activities, such as the ASSET Project Assembly and the JISC 'Trade Fair' in Birmingham in January 2010. A selection of these are also available under ASSET videos.

Each member of academic staff taking part in the project was supplied with a webcam and the 'host' Department/School was also supplied with a flip video (or camcorder) and tripod to support the creation of videos in a wide range of contexts (e.g. laboratory, field work). Face-to-face small group and/or one-to-one technical support training was given to each member of staff enrolled in the project by the ASSET e-Learning Research Officer. Open source screen capture software, CamStudio, was also installed on staff computers and training was given in simple video development techniques and the mechanics of the ASSET resource. This support was

complemented with a suite of online FAQ videos within ASSET (for example, see the Camstudio FAQs).

4.5 Staff and student evaluation of ASSET

Evaluation of the ASSET resource and its potential effects on teaching and learning took place through the use of online questionnaires and focus groups. Staff and students were asked to complete a questionnaire before they used the ASSET resource (see Evaluation questionnaires). The purpose of this first survey was to get an insight into the views, preferences, understanding and experience of current assessment and feedback practice of both staff and students. The team did not want this initial questionnaire to influence how the ASSET resource would be used by staff and students so care was taken not to include questions that focussed too narrowly on specific types of assessment or feedback. The questions went through several rounds of formulation and discussion with all members of the ASSET team and were cleared by an Ethics Committee prior to release.

The staff questionnaire included twenty five questions, some open format, others using a five point 'Likert' scale. The questions were divided into four sections.
- The first set of questions were to gain background information about the staff, namely:
  - how long they had been teaching
  - their use of technology in teaching
- The other sections asked questions about staff experience at providing feedback including:
  - their views and current practices
  - the challenges they face in providing timely, effective feedback to students
  - their initial thoughts on using video for feedback.

The student questionnaire included eighteen questions and was also a mixture of open format and five point 'Likert' scale questions. These questions were divided into five sections.
- The first set of questions were about the students, namely:
  - their degree programme
  - gender
  - their experiences in using technology to support their learning
- Questions in the remaining sections explored students' views and experiences of feedback, what they do with their feedback and the types of feedback they prefer.

The surveys were developed using Bristol Online Survey software (BOS) and the survey link was emailed to all staff and students registered on their modules. The questionnaire for staff ran over the summer vacation 2009 and 27 of the 32 staff who initially agreed to take part in the pilot responded. The student questionnaire remained open during the Autumn Term 2009 with 287 students responding out of a possible 1408 (the total number of students registered on the modules the staff piloting the ASSET resource were teaching); this represented a response rate of over 20%. We were principally reliant upon our academic colleagues to promote the survey to students as it was felt that students might be more inclined to engage with it if they were invited to do so by staff that they knew (as opposed to a member of the ASSET team whom they would probably not know).

Staff and students were asked to complete a second online post-ASSET use questionnaire (using BOS software). The staff questionnaire was emailed to the 32 staff who originally agreed to take

part in the pilot and was available throughout the Spring Term 2010. The student questionnaire was sent to those students who had either logged on and used the ASSET resource and/or had responded to first survey. This meant that the survey link was emailed to 584 students and it was available to students from the 1st February 2010 until the 19th March 2010 (end of the Spring Term 2010); 105 students responded to this questionnaire, a response rate of 18%.

The staff post-ASSET use questionnaire focused on the use of the resource, how many and the type of videos staff had uploaded, how long and the ease of creating and uploading videos and whether or not they would use video again for feedback provision. The student questionnaire focused on how easy ASSET was to use, whether they liked the provision of feedback via video and if they found it useful in comparison to other methods of feedback, how they used it and whether they would like staff to keep using video for feedback (see Evaluation questionnaires). To explore in detail the effect video had on learning and feedback, staff and students were invited to attend informal focus group sessions. Seven key questions on the use of video and feedback were developed for these meetings (see Evaluation questionnaires). The questions included in the focus groups went through several rounds of formulation and discussion with all members of the ASSET team. Three staff focus groups were held on 16th December 2009 and 2nd and 3rd February 2010. Staff who were unable to attend were given the opportunity to feedback to the team in separate one-to-one meetings and telephone conversations. In total, thirteen staff provided us with these additional qualitative data. Students were invited to attend focus groups in the Spring Term 2010 but failed to engage with this aspect of the project. With the support of Students' Academic Representatives the team intend to pursue this in the Summer Term to try and collect additional qualitative data from students to contribute to the ongoing pedagogic research.

4.6 Dissemination of ASSET across HE Sector

The ASSET team have engaged in a number of national Teaching & Learning events. For a full list, including future dissemination events, see the ASSET website (Dissemination Events).

## 5 Outputs and Results

5.1 Staff surveys

27 of the 32 staff who initially expressed an interest in piloting ASSET responded to the pre-ASSET use questionnaire. These staff (13 men and 14 women) represented a range of Faculties (Arts and Humanities, Social Sciences, Life Sciences, Science) and were generally more experienced lecturers (Figure 1.)
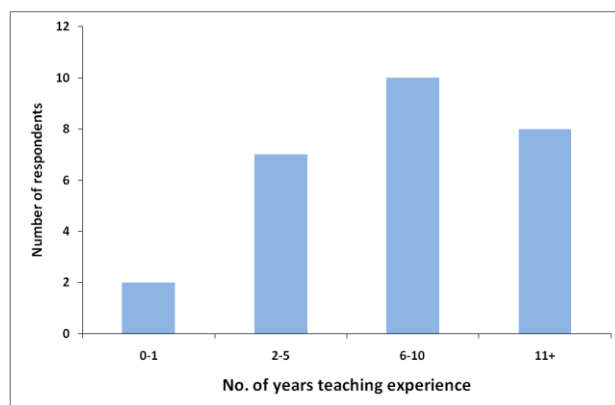

Figure 1. The teaching experience of the staff involved in the ASSET pilot

Staff who responded to the pre-use questionnaire used a variety of methods to give feedback to students (Figure 2a). One-to-one feedback was used less commonly and audio and video were

rarely used by staff prior to the ASSET project. However, even though most staff do use a number of different methods to give feedback written forms were the most commonly used (Figure 2b.).
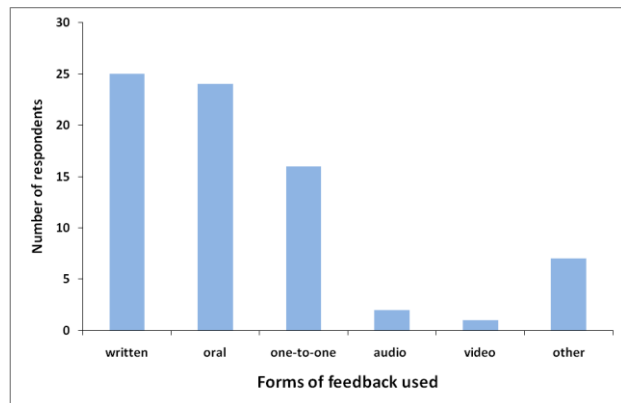
Figure 2a. The feedback methods used by staff prior to using the ASSET resource.
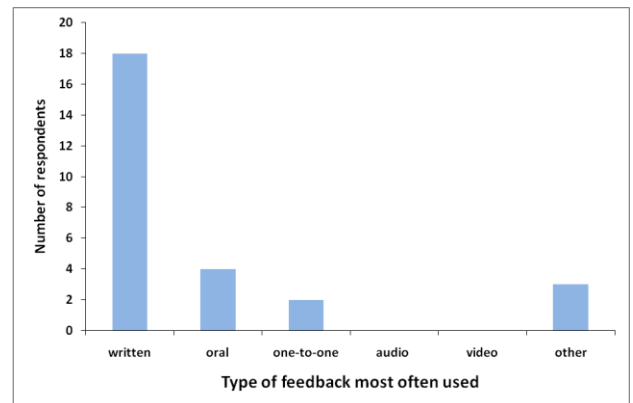
Figure 2b. The types of feedback used most often by staff prior to using ASSET.

The post-ASSET use staff questionnaire closed on 31st March 2010 and analysis of these data will commence shortly and will be incorporated within the project's pedagogic research papers (currently in prep.).
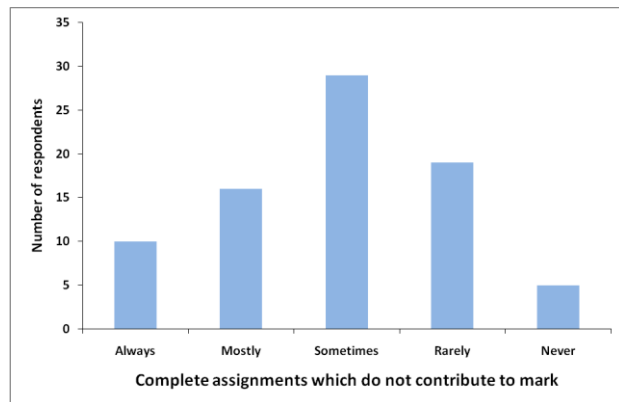
5.2 Staff focus groups and individual meetings

The ASSET resource was very well received by staff and comments from the focus groups which took place in December 2009 and February 2010 were all extremely positive. ASSET was being used by some staff primarily for providing feed-forward to students on assignments rather than feedback after the assignment was completed, partly as a result of when assignments were submitted in relation to the timing of the project. Many of the staff commented that they were engaging with feed-forward to a much greater extent than previously. Most staff found that producing video feedback took longer than their 'usual' methods, for example, because they said that they had to plan what they were saying and sometimes edit the feedback before they uploaded the video into the ASSET resource. That said, staff acknowledged that this did get quicker with more experience. Some examples of staff reactions to the use of video for feedback are available – see What Staff Say.

5.3 Early pilot evaluation by staff within the Centre of Applied Language Studies

Six staff were involved in this pre-pilot during the Summer of 2009. It was envisaged that the ASSET resource would be fully available to staff and students to use with the features of controlled access, different levels of playlists and search facilities by June 2009. However, progress on the software development required for the ASSET resource took longer than envisaged and the resource was not fully available to staff and students until September 2009. Nonetheless, staff were able to use CamStudio and to create feedback videos which they could link to from their modules' Blackboard pages. Both students and staff responded to the first survey questionnaire so we were able to get an insight into their views, preferences, understanding and experience of current assessment and feedback practices. We had a good response rate, all six staff responded and 79 students (from a total of 100); it is worth noting than none of these student respondents had English as their first language. The majority of student respondents (67%), look at websites such as YouTube and/or social networking websites such as

Facebook, Twitter and/or MySpace sites regularly (more than twice a week) a further 27% use these sites sometimes (more than once a month < twice a week). No respondents said they never used these sites. The students also stated that were confident in using technology with 81% saying they were 'always' and 'mostly' confident.

Feedback on coursework was seen as very important by these students. Excluding those in their first year, 22% strongly agreed with the statement 'Feedback on my work was important during my previous year(s) studying at university' with a further 60% agreeing with the statement. However this was not reflected by their response to the questions relating to formative assessment with only 13% stating that they always completed an assignment that gives feedback but which doesn't contribute to the final module mark with over two thirds of respondents saying they sometimes, rarely or never complete an assignment (Figure 3.).

Figure 3. Students that complete an assignment with feedback but which does not contribute to the final module marks.

Nearly 80% of these students discuss their feedback with peers, such as friends or other students. Interestingly, of those, 90% considered these discussions to be a form of feedback. The students stated that they prefer to receive written feedback returned with their assignment followed by comments from their lecturer or personal tutor during a one-to-one meeting (Figure 4.).
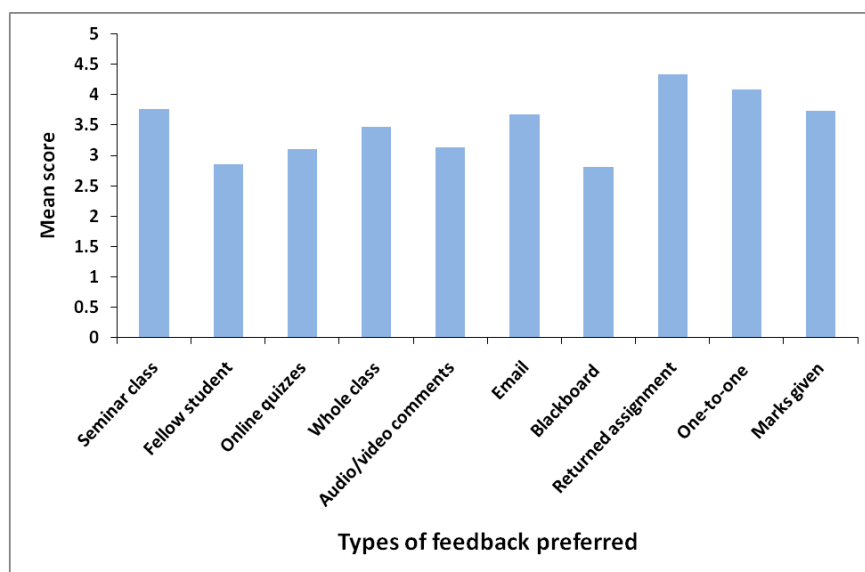

Figure 4. Student preferences for feedback methods prior to experiencing video feedback.

5.4 Student pre-ASSET use survey in the main project phase

Over 20% of the students from the five Departments/Schools taking part in the project completed the pre-ASSET use questionnaire responded (287 from a total potential sample of 1408) representing a range of ages and experiences from Foundation to post-graduate levels

(Figure 5.) More female students responded to the survey (71.1%) with just over a quarter of the students (28%) having English as a second language.
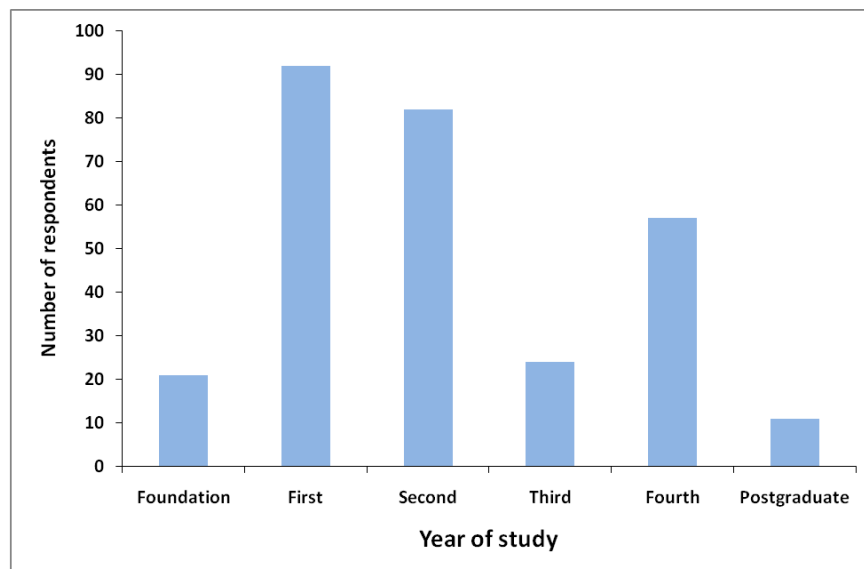
Figure 5. The number of student respondents to the pre-ASSET use questionnaire according to year of study.

The overwhelming majority of students in the survey (91%) stated that they looked at websites such as YouTube and/or social networking websites, such as Facebook, Twitter and/or MySpace sites regularly (more than twice a week). Only 2.4% of students said that they never look at these websites.

Feedback on coursework was seen as very important by the students. Excluding those students in their first year, 57% strongly agreed with the statement 'Feedback on my work was important during my previous year(s) studying at university' with a further 28% agreeing with the statement. However less than half of the respondents (45%) said that they always completed an assignment that gives feedback (i.e purely formative) but doesn't contribute to the final module mark (Figure 6.)
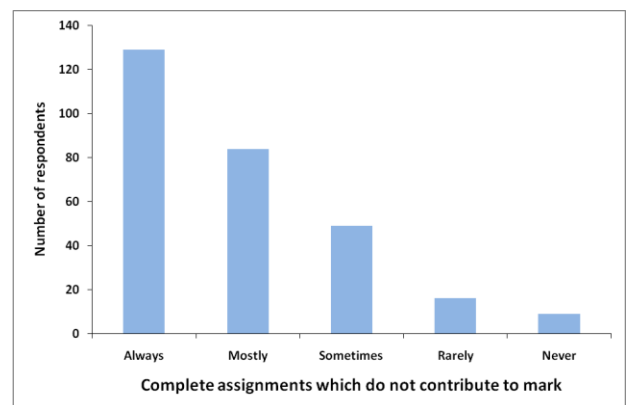

Figure 6. Students that complete an assignment with feedback but which does not contribute towards final module marks.

Very few students stated that they had experienced video/audio feedback prior to engaging with the ASSET resource (Figure 7.).
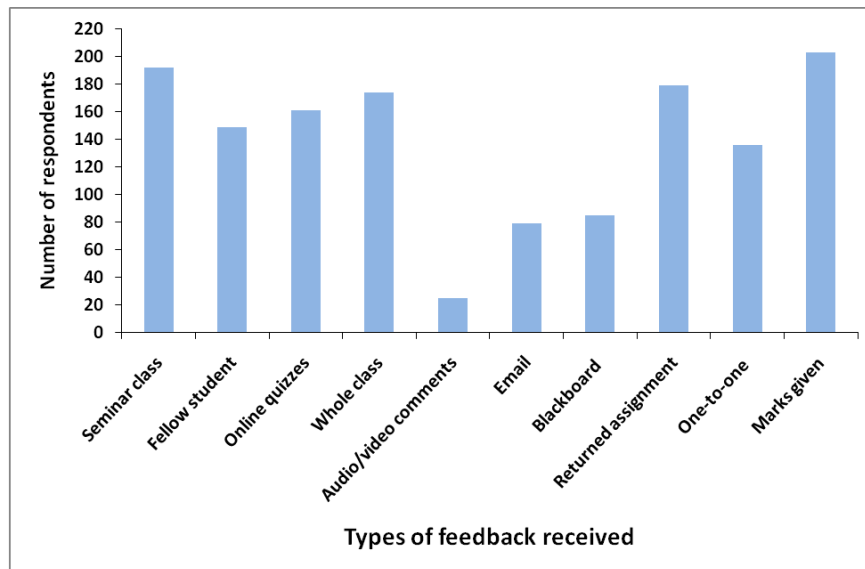
Figure 7. The types of feedback most commonly experienced by students prior to using the ASSET resource.

Prior to using ASSET the students stated that they preferred to receive feedback from their lecturer during one-to-one meetings, very closely followed by written comments on assignments (Figure 8.).
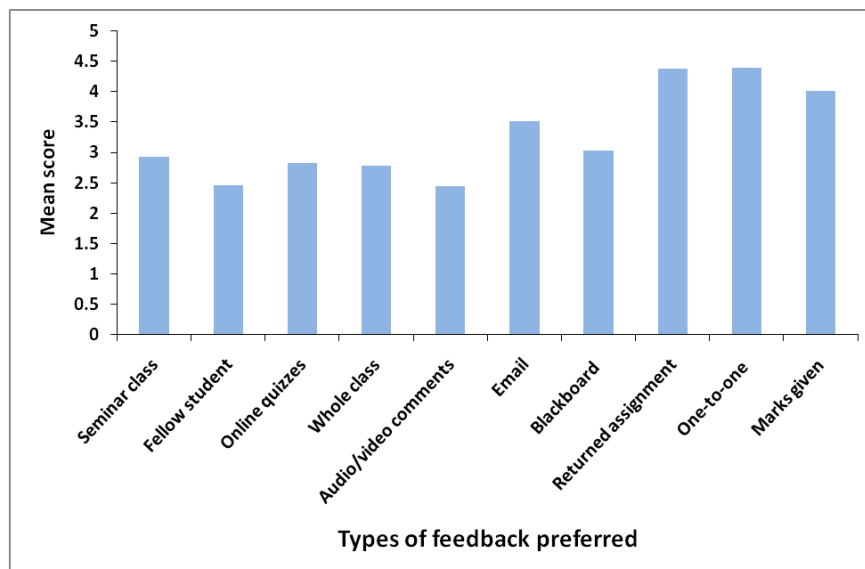
Figure 8. Feedback preferences of students prior to engaging with the ASSET resource.

5.5 Student post-ASSET use survey

The post-ASSET use questionnaire focused on how easy the ASSET resource was to use, whether the students liked the provision of feedback via video, if they found it useful, how they used it and whether they would like staff to keep using video for feedback. 105 students completed this questionnaire, a response rate of 18%. The respondents were very positive about the use of video feedback; for example, 82% liked the use of video feedback, with some stating that it was more engaging and informative than methods that they had previously experienced; 80% of the students stated that they would like their lecturer to keep using video feedback next year. In

addition, 60% said that "receiving video feedback encouraged them to take more notice of the feedback compared with normal methods". Students said that they normally watched the feedback videos on their own (87%), but more than half (58%) said that they did discuss their lecturer's feedback videos with other students on their modules. Some of the advantages highlighted by these students regarding the use of video for feedback provision were that it was easier to understand and that it could be re-played multiple times. "Technical issues" and problems with accessing the ASSET resource were viewed as the two main disadvantages. Of the 19 students who didn't like the use of video feedback, the reasons they cited included a preference for written or face-to-face feedback and a dislike of generic feedback (i.e. it wasn't 'personal' feedback).

5.6 Project Outputs

The development of the ASSET resource has been the key 'product' from this project (accessible via the project website). In addition, the ASSET team has developed a variety of materials to disseminate the project such as reports, presentations, publications and posters (Dissemination Outputs). Promotional postcards, flyers, CDs and a banner have also been produced (Promotional Materials). The project website and project blog have been developed to act as a repository of information for both the project team and the wider teaching and learning community, both of which will be built upon through related Benefits Realisation Activities. Currently in preparation are in-depth staff video case studies (e.g. what was using video *really* like? etc.), virtual learning environment 'frameworks' and associated support materials (see Sections 3.2 and 4.1). A number of papers are currently in preparation to be submitted to peer-reviewed journals in 2010.

6 Outcomes

6.1 Achievements

The original aims and objectives of the project have all been met and with the creation of the VLE 'frameworks' we will have exceeded our original project's expectations. We were also successful in receiving Benefits Realisation funding which has allowed the use of the ASSET resource to be embedded within the University of Plymouth, thereby increasing the number and diversity of staff using video for feedback provision.

Through an institutional approach to project engagement we have been able to secure a positive response from a wide range of staff and students to the use of video for feedback provision. For example, staff have indicated that using video has made them think more, and in some cases differently, about the ways in which they deliver feedback to students to make it more useful and engaging. Many of the staff involved in the project have said they will continue to use video feedback and 80% of students who responded to the post-ASSET use questionnaire would like their lecturers to continue using video as a means of feedback provision. Given the exploratory nature of this project we are extremely pleased that it has delivered not only the 'product', i.e. ASSET, but that it has also instigated cross-disciplinary-level change in the ways in which staff and students think about, deliver, and engage with feedback.

6.2 Main Lessons Learnt

As with any pedagogic research project of this kind we have learnt a number of important lessons, for example:

- There are advantages but also a number of challenges (e.g. technical and financial) involved in using proprietary software to develop educational resources.
- Seeking the support from colleagues across the University from both the 'top-down' (i.e. Pro-Vice Chancellor of Teaching and Learning and the Faculty and School Directors of Teaching and Learning) and 'bottom up' (i.e. academics, teaching and learning support staff & the Students' Union) is essential. We believe this approach has been a critical success factor in maximising opportunities for institutional engagement and change.
- Don't underestimate how challenging it may be (in terms of both time and effort) to encourage students to participate in online surveys and focus groups.
- Regular dissemination events (internal and external) are important sources to seek objective feedback whilst creating important networking and resource-sharing opportunities.
- Regular communications within the team (e.g. face-to-face and 'virtual' meetings, project blog) are essential to keep colleagues updated, to maintain momentum and to ensure project objectives are being met. This is particularly important where project teams are comprised of staff from a number of institutions.

7 Conclusions

In conclusion, the ASSET project has delivered the following outcomes:

- Provided an easily accessible teaching resource, 'ASSET', to support and engage staff and students with the use of video media for feedback provision;
- Created new opportunities for staff to be more creative with the feedback they give;
- Allowed staff to think about their teaching practices and in particular how they provide feedback to students;
- Supported and encouraged staff to provide feed-forward to students;
- Enhanced student engagement with feedback by encouraging students to reflect on their assessment and to think differently about their work;
- Created opportunities for new feedback-related dialogues between students and between students and staff.

8 Implications

In addition to the project outputs and future planned activities already mentioned (section 5.6) the ASSET team have recently been successful in securing additional Benefits Realisation funding. This will be used to create new 'capacity building' opportunities through the development and hosting of a number of interactive workshops and meetings across the UK between April 2010 and March 2011. The current plan is for these events to address different aspects of enhancing the feedback experience for staff and students (e.g. through the use of different technologies), as well as exploring the importance of 'building capacity' within institutions, and drawing on existing networks, such as the Media Enhanced Learning SIG. This will build on the work that the ASSET team has led over the last 18 months, and will provide opportuinities for new collaborations, as well as potential consolidation of resources and outputs.

9 Recommendations

There are a number of recommendations arising from the ASSET project. These include:

- Wherever possible seek support from staff at all levels of the institution, for example, through early and pro-active dissemination of project objectives, making use of existing institutional networks.
- To maximise chances of successful engagement by staff (and students) it is recommended that projects make it clear what they can expect to gain from being involved in the project and what type and/or level of support they can also expect to receive.
- A wide variety of approaches and incentives is recommended to achieve successful student engagement with online surveys. Making use of institutional student bodies, such as student academic and Students' Union representatives, is a useful starting point.
- A mixture of formal (with minutes recorded) and informal regular meetings (face-to-face and 'virtual') alongside 'light touch' methods of communication, such as a project blog, are recommended to keep the project on track and to keep all team members informed of project developments.
- Planning to host a series of regular internal 'events', e.g. presentations and small project briefing papers is recommended to keep the wider institution informed of project activities and to generate project interest and support. To reach a diverse audience making use of existing communities of practice within institutions to 'host' project events is recommended.
- Regular engagement with external dissemination opportunities is recommended, even when the project is in its early stages. These events can provide useful opportunities for objective feedback and also can serve to raise awareness of the project across a wider community.
- It is recommended that project Steering Group membership is carefully considered, for example, ensuring Senior Management, academic, ITS and, if appropriate, students, are represented. This can provide an opportunity to bring both a wide range of expertise and experiences to the project, alongside objective, cross-institutional support for the project.
- Developing a 'visual identity' for the project (e.g. a logo) to raise awareness of the project is recommended, particularly when the project is in its early stages. This can then be embedded within other dissemination materials, including the project website, briefing papers, presentations etc.

10 References

Biggs, J.B. (2003a). *Teaching for quality learning at university: what the student does*. Society for Research into Higher Education & Open University Press, Maidenhead.

Biggs, J.B. (2003b). Aligning Teaching and Assessment to Curriculum Objectives, (Imaginative Curriculum Project, LTSN Generic Centre)

Duncan, N., (2007). 'Feed-forward': improving students' use of tutors' comments. *Assessment and Evaluation in Higher Education*, 32, 271-283.

Gibbs, G. (1988). *Learning by Doing: A Guide to Teaching and Learning Methods*. Oxford Centre for Staff and Learning Development. http://www2.glos.ac.uk/gdn/gibbs/index.htm

Gibbs, G. & Simpson, C. (2004). Conditions under which assessment supports students' learning. *Learning and Teaching in Higher Education*, **1**, 3-31.

Glover C. & Brown, E. (2006). Written Feedback for Students: too much, too detailed or too incomprehensible to be effective?, *Bioscience Education E-journal*, **7**-3. http://www.bioscience.heacademy.ac.uk/journal/vol7/beej-7-3.aspx

Hattie, J. & Timperley, H. (2007). The Power if Feedback. *Review of Educational Research*, 77, 81-112.

Higgins, R., Hartley, P. & Skelton, A. (2001). Getting the message across: the problem of communicating assessment feedback. *Teaching in Higher Education*, **6**, 269-274.

IPSOS Mori (2008) Great expectations of ICT how higher institutions are measuring up. Research study conducted for the Joint Information Systems Committee (JISC). http://www.jisc.ac.uk/media/documents/publications/jiscgreatexpectationsfinalreportjune08.pdf [last accessed 24 November 2009]

Juwah, D., Macfarlane-Dick, B., Matthew, D., Nicol, D. & Smith, B. (2004). *Enhancing student learning through effective formative feedback*. York: The Higher Education Academy.

Kolb, D. A. (1984). *Experiential Learning: Experience as the source of learning and development*. Prentice-Hall, Englewood Cliffs, New Jersey, USA.

Merry, S. & Orsmond, P. (2008). Students' Attitudes to and Usage of Academic Feedback Provided Via Audio Files, *Bioscience Education E-journal*, **11**-3. http://www.bioscience.heacademy.ac.uk/journal/vol11/beej-11-3.aspx

Orsmond, P., Gomez, S., Crook, A.C., Drinkwater, R., Lawson, C.S., Lundqvist, K.O., Maw, S.J. & Park, J.R, (in preparation). Releasing the genie from the bottle: new feedback practices for old.

Rust, C. (2001). A briefing on the assessment of large groups. LSTN Generic Centre.

Sadler, D.R., (1983). Evaluation and the improvement of academic learning. *Journal of Higher Education*, **54**, 60-79.

Yorke, M. & Longden, B. (2008). *The first year experience of higher education in the UK* (final report to the HEA).