Cascade Project: Baseline Report

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Goal, approach and structure

This document outlines the baseline for the Cascade project. The overall aim of the Cascade project is to investigate the use of technology to create improved curriculum delivery models that allow the University of Oxford's Department for Continuing Education to respond more flexibly to stakeholders' needs.

In order to evaluate whether the project's objectives will be achieved at the end of the project, an Evaluation Plan was produced in March 2010. The Evaluation Plan is divided into five focus areas, each of which pursues different aims of the project, as outlined in the matrix below:

Aims Focus areas	Efficiency	Innovation	Service
Online assignment handling	✔		(✔)
VLE support for courses	✔		(✔)
Online delivery of generic content	(✔)		✔
Course design		✔	
Online payment and enrolment	✔		(✔)

Table 1: Matrix linking project aims to focus areas

For each evaluation area, the Evaluation plan identifies what success would look like and described the respective measures. It also describes which data collection method will be used and links evaluation aims, measures of success and data collection method to the evaluation question we want to answer.

The goal of this Baseline Report is to provide a sound basis on which the success of the project will later be evaluated. Therefore, the report follows the same structure as the Evaluation Plan starting with focus area 1 on online assignment handling and concluding with focus area 5 on online payment and enrolment.

Each section depicts the various baseline activities carried out in order to provide a good understanding of the current status of the project. It should be noted that the current status means the situation before the implementation of relevant interventions by the Cascade project. Where possible, data collection, analysis, and interpretation have been separated in to three distinct sub-sections. This report focuses entirely on the description of baseline information and will be used as the baseline against which the success of the project will be evaluated. The full evaluation of the project will be written up in a final Evaluation Report at the end of the project.

1   Focus area 1: Online assignment handling

This focus area looks at online assignment handling, replacing the Department's current Collaborative Assignment Submission System (CASS) and paper-based assignment handling processes with an enhanced online assignment system that can be used by the majority of courses.

CASS is a bespoke online assignment submission system, originally developed by the Department in the late 1990s to provide a mechanism for students of its first award-bearing online courses to submit their course assignments. Over the years, CASS has had some small updates to add new functionality and to ensure the system operates securely on modern hardware and operating systems but has largely remained unchanged. The system operates stand-alone and requires separate passwords from the Department's other network, email and Virtual Learning Environment (VLE) services. This system is operating at capacity and so can not be used for the majority of the Department's assignment handling requirements. Currently the majority of courses in the Department handle their assignments using paper-based processes.

1.1 IT support time

The first area to baseline is the IT support time it takes to keep the current legacy online assignment submission system (CASS) running. As the data collection method, we chose gathering time series information on support time provided by the Department's Technology-Assisted Lifelong Learning (TALL) IT support team. By analysing and interpreting this data we hope to create a baseline for the evaluation question: how does a new online assignment handling system affect IT support?

Evidence gathered
The main data we refer to in this section is an Excel spreadsheet held in the Department detailing the amount of time spent providing IT support to students, administrative and academic staff to support their use of the existing CASS online submission system. The spreadsheet gives details on IT support time in minutes by course and by month. We selected the period from August 2007 to July 2009 in order to analyse IT support time before the start of the Cascade project. (For more detail on the reported IT support time, please see Appendix 1.1.)

Analysis
In the first selected academic year – August 2007 to July 2008 – seven programmes were using the CASS service. The total support time given over this 12-month period was 50h50min. If looked at on an average monthly basis, about 4h30min of IT support was provided, which is an average of 38min per programme per month.

In comparison, during the second academic year reported – August 2008 to July 2009 – nine of the 11 programmes using the CASS service required IT support. Here, the total amount of IT support time provided amounted to 83h25min. This translates into about 7h per month or 46min per programme per month.

	2007/2008	2008/2009
Total IT support time (CASS)	3,050min	5,005min
Number of programmes supported	7	9
Average time per programme/month	38min	46min

Table 1: IT support time CASS

When looking at the time series information in more detail, the following observations can be made.

First, the IT support time required is not equally spread across the year. Some months are peak months, e.g. November, January, March and April, where on average 50% more support time is required in comparison to other months.

Second, IT support time by programme varies significantly. Some programmes required as much as 23h of support time over the two-year period, whereas other programmes required as little as 6h of support time.

Interpretation
The total IT support time has gone up between the two academic years. This can be explained by the increased number of programmes supported. Other factors that can explain the increased support time are the number of assignments per programme and an increased number of students submitting assignments through the current legacy system.

Peak months in IT support typically occur in months when assignments are due, i.e. students contact IT support when they have trouble submitting their assignments. Also administrative staff and academics contact IT support more often when they are handling the assignments, for instance when downloading the submitted assignments for marking or when uploading the grades. A typical reason for contacting IT might be a forgotten password (see section 1.6 for further details). This leads to the result that less IT support is needed in months when no submissions are due.

When looking for an explanation of IT support time variation between programmes, three insights were given by the IT support team:

Firstly, it seems that staff and students from medical-related subject areas tend to ask more often for IT support when submitting their assignments.

Secondly, students who study on a course where assignments are submitted more frequently tend to need less IT support time as they tend to remember their login details and submission procedure from previous assignments. On the contrary, students who have only a few assignments to submit over a long period of time often tend to forget the procedure and details and therefore contact IT support more frequently.

Thirdly, when there is a change of either academic or administrative staff for a programme, more IT support is required for the online assignment submission system as every new colleague needs to familiarise themselves with the system and assignment submission procedure.

In conclusion, it can be said that total IT support time for the current online submission system seems to be increasing due to more programmes using CASS; student-specific support requirements and the turnover of personnel in the Department. The support requirements are seasonal in line with course schedules and assignment deadlines.

1.2 Administration handling time
Next, we want to give an overview of the current administration handling time for paper-based vs. the legacy online assignment handling system (CASS). As a baseline data collection method, we produced process flow diagrams for both processes. In collaboration with the Department's Registry staff, we then collected data on the time involved in each process. By using time motion data and comparing average handling times in this way, we hope to create a sound baseline for the evaluation question on how online assignment handling affects the total administration handling and extension approval time.

Evidence gathered
In this section, we refer to two flow charts that depict average administration handling time for manual and legacy system (CASS) online assignment submission. The flowcharts are split into two parts: the first part shows the assignment submission and marking process, including moderation of scripts, and the second part shows the extension approval process.

The flowcharts were completed by the Department's Registry in April 2010. For more detail on the reported administration handling time, please see [Appendix 1.2](#).

Analysis
The first flowchart shows that the administration handling time for the paper-based assignment handling process is approximately 95min. This data refers to the first part of the flowchart depicting the assignment submission and marking process including moderation of scripts per course assignment. An additional 4-5 days per year are spent on archiving all paper-based assignments at once. In comparison, the end-to-end handling time for assignments submitted to CASS is approximately 35min. No archiving time is required as the assignments are automatically archived in CASS. The end-to-end process can be further broken down into various sub-handling processes:

Assignment handling process steps	Paper-based	CASS
Course assignment set-up	5min	5min
Preparation for marking	15min	None
Preparation for moderation	45min	20min
Student notification	30min	10min
Total end-to-end assignment handling	**95min**	**35min**

Table 2: Administration handling time for assignment submission

The student extension approval process is a separate process that takes 21-51min for the paper-based assignment handling process and 9-39min in CASS.

Extension approval process	Paper-based	CASS
Receipt of request	2min	2min
Passing request on to decision maker[1]	5-30min	5-30min
Receipt of decision	2min	2min
Verification and notification of decision	12min	None
Total end-to-end extension approval	**21-51min**	**9-39min**

Table 3: Administration handling time for extension approval

Interpretation
The results of the two time motion studies suggest that there is a significant time saving potential with the automation of assignment handling. As the analysis showed, the current CASS process takes 60min less time in administration handling per course assignment for the first part of the process and 12min less time in assignment extension approval per student request.

1.3 Adoption rate

The next area under consideration is the adoption rate of the new system. This will be done by counting the number of programmes that use the system, once it is available. This step can only be done once the new system is implemented. As this is not the case at the time of the baseline report, no data can be collected in this area. Once the new online assignment submission system has been launched, adoption rates will be measured and scenarios of future use and cost savings for the Department will be developed. This will enable us to

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[1] The amount of time of passing on the request to the decision maker depends on how the request is received and whether additional authorisation needs to be granted.

answer the question: what is the rate of adoption within the Department for the new online assignment handling system?

1.4 Service response time

The service response time looks at the total time it takes from uploading an assignment to uploading the final grade: through a more efficient online assignment handling process, the total time from beginning to end should be reduced. As a baseline data collection method, we chose to collect records from the Department's Registry staff to inform us about current service response times. This way, we hope to create a baseline for the question on how the improved online assignment handling affects the service response time for students.

Summary of current status
Data in this area was collected from the Department's Registry. The data describes nominal response times as well as an explanation on cases where the turnaround time is longer.

The average turnaround time between students submitting their assignment online and academics posting the approved marks to students is normally two weeks. This is the service response time that students can expect under normal circumstances. Where assignments are sent off for moderation, the nominal turnaround time is four weeks.

However, in some instances, the service response time can deviate significantly from the two week and four week norms, and in the worse cases, it can take as long as three to four months until students receive their marks. This is a problem in that students have to work on their next assignment without having received feedback on the previous one.

For the academic year 2009/10 there have been a number of delays that have prevented the Department's Registry from being able to return marks to students within two-weeks. This has been especially evident with Masters-level professional development programmes.

The reasons behind the delays may be, but are not exclusively, attributed to external markers (i.e. not tutors appointed by the Department), markers encountering difficulties using CASS, markers' preference for systems which use single-sign-on, holiday, sickness and unclear information being provided by the course teams.

1.5 Customer satisfaction

Key customers of assignment submission systems are students who hand in their assignments manually or online and academics who receive or download the students' submissions, mark them and then notify the students of their grades. We chose two baseline data collection methods in this area. First, we administered an online survey with students, administrative staff and academics from across the Department. By analysing the answers from these online surveys, we hope to establish a baseline to evaluate key customer satisfaction after the implementation of the new online submission system. Second, we gathered some complaints about the current system sent by academic staff. The complaints, collected by email, indicate the nature and degree of dissatisfaction with the current CASS system. By conducting these two activities, we hope to create a baseline for the question: how does online assignment handling affect the customer satisfaction of academics and students?

Evidence gathered – online survey
Several online questionnaires were administered to students, administrative staff and academics to enquire about their attitude towards the implementation of a new online assignment submission system. The data was collected in September and October 2009.

The total number of collected responses we refer to in this baseline report is 57 of which 30 responses come from students from Archaeology and Psychodynamic Counselling, 16 from administrative staff and 11 from academics teaching various study programmes.

Each questionnaire contains questions on online submission of assignments. The remaining questions refer to technology use in general and the experience of using the VLE for course support which will be referred in a later section of this report.

For more detail on the reported student attitudes towards online assignment submission, please see Appendix 1.3(a) and for staff attitudes see Appendix 1.3(b).

Analysis – online survey
One question was asked to all student, administrative staff and academic respondents: "We are investigating the provision of online assignment submission for our courses. Would you welcome this service?" In response, 38 people said yes, 14 people were not sure and 4 people said no. One respondent skipped this question.

Other statements in the questionnaire applied specifically to students. 89.7% of the interviewed students currently submit their assignments by hand, and only 11.3% submit their assignments online.

Next, students (n=30) were asked for their online assignment submission requirements. If they submitted their assignments online, they would like to receive a confirmation of assignment receipt by email (89.7%). Furthermore, the majority state that they have the technical skills to submit an assignment online (82.8%) and half of the group believes that submitting the assignment online would speed up the turnaround time of their assignments (55.2%).

When asked for possible drawbacks, 13.8% actually prefer handwritten comments by the marking academic rather than receiving typed feedback.

Regarding online security, 72.4% feel confident about security aspects of online submission and 58.6% see an additional benefit of the new system of enabling the student to submit on the exact day of the deadline rather than accounting for the lead-time it takes when submitting an assignment by post.

Some free-text questions about online assignment submission were included in the survey: two comments received refer to the question of whether graphs in text and attachments to the assignment will still be possible with online assignment submission. Two students also stressed the importance again of receiving an email confirmation once the assignment has been successfully submitted. One student referred to his/her positive experience with a similar system on an Open University course.

When asking administrative staff and academics (n=27) about online assignment submission, 56% had used CASS before, 37% had heard about this system but hadn't used it and 7% did not realise that the Department had this service.

Three quarters of these respondents feel technically confident handling assignments online (76%). They furthermore believe that the online assignment submission would speed up the marking process (72%) and feel relatively confident about security aspects when submitting marks online (64%).

When asked about possible drawbacks of the new system, half of the academics and administrators would prefer not to print out the assignments (56%), and 40% are worried about students submitting assignments in file types that they cannot read.

In the qualitative section of the questionnaire, there were many positive comments by administrative staff on how online assignment submission system will speed up the process and make things more efficient. Academics mostly commented on the AM1 declaration of authorship form (the form the Department require students to complete and submit with their assignments and on which tutors provide feedback and marks to students); they also mentioned that easy access to plagiarism detection software would be appreciated.

Interpretation – online survey
The results of this online question with 57 respondents from different groups and programmes depict an overall positive attitude towards the use of technology in assignment submission and the implementation of a new online assignment submission system.

The second part of the baseline on customer satisfaction in online assignment submission investigated feedback from users of the current CASS service.

Evidence gathered – email complaints
Most communication about the CASS service is between course administrators and the TALL IT support service, but when severe problems are experienced issues are escalated to TALL's Co-Manager (Administration) by the Department's academic divisions. By reviewing email correspondence of escalated complaints about the service we hope to establish the baseline of levels of customer satisfaction with the existing CASS service.

Summary of current status
Of the 11 programmes using CASS in the 2008/09 academic year, complaints were escalated by two programmes. In both cases the course managers and course directors had received numerous email complaints from academic staff using the CASS service to mark student assignments. Many of the emails from markers and course directors expressed dissatisfaction with the system, as demonstrated by the quotes below:

> "I've really lost patience with this online marking scheme now." (Email from tutor)

> "Having spent the best part of an hour trying to fathom the instructions on how to return my assessments I'm afraid I will have to admit defeat. I have come to the conclusion that it would be quicker and easier to send them to you as an attachment." (Email from tutor)

> "I have marked and up loaded two assignments, but I found the system complex and cumbersome, please can you confirm that you have received the uploads from me." (Email from tutor)

> "This process has been enormously difficult to administer with a lot of technical difficulties for assessors accessing the information and then submitting the forms. The instructions about which mark to submit (agreed or individual) created a lot of confusion and has resulted in me having to send 40 emails in communication with the assessors just on this issue. I do hope that some efforts will be made to organise a more intuitive system that is more practical for an online course." (Email from a course director to Registry)

In both cases where complaints were received, meetings were held with the programme teams to further explore the problems experienced. In both cases, while acknowledging that the CASS system can be a little awkward to use and the requirement for multiple passwords causes frustration, it was established that there were no technical problems with the service and that most of the issues experienced were less about the online system than about the administrative processes, procedures and documentation surrounding the online assignment marking process.

In summary, based on evidence from escalated complaints about the CASS service and incidental evidence, generally most staff members are reasonably satisfied with the service provided. No complaints were received from over 80% of programmes using the services and the two programmes that did escalate complaints continued to use the service (which is optional). However, where complaints were made and dissatisfaction with the service expressed it was established that issues experienced were often as much about communication and the administrative processes, procedures and documentation surrounding online assignment administration as the online technology itself. Yet, where academic staff experienced problems, they often associate them with the online technology rather than the underlying administrative processes, which highlights the importance of ensuring that technology is well integrated in robust administrative processes in order to maximise user satisfaction.

1.6 Ease of use

Finally, we looked at the ease of use of the current online assignment submission system (CASS). Current system log information was hard to extract and interpret, so we chose to interview the TALL IT support manager instead. The perceived ease of use is closely linked to the IT support time described earlier in this section. By analysing this information describing current system issues we hope to give a baseline on what improvements in terms of perceived ease of use can be made through the introduction of the new online assignment handling system in the future.

Summary of current status
The following summary of current status is based on an interview with the TALL IT support manager, conducted in March 2010. Four main system issues were reported:
   1. Passwords
   2. Single submission only
   3. Extensions
   4. Email retrieval by marking tutors

The impact of these issues on the current ease of use of the CASS system, for students, administrative staff and academics is described below.

Passwords
CASS is a stand-alone system, which means that it is not integrated with other University systems. As a consequence, account details and passwords are different from the two systems students use: University single sign-on (SSO) (used for accessing University-wide resources, such as library services) and the Department's VLE, which is used to deliver distance learning courses and to support many face-to-face courses.

Many students choose to change their passwords on the Department's VLE site, which means that they then have different sets of account details to remember. As CASS is the system they will use the least, it is invariably the CASS password that will get forgotten. This is compounded by two facts: firstly, there is no means to retrieve a lost password in CASS, and secondly, students often are in a time-pressed situation as they only try to access CASS shortly before their assignment is due. For these two reasons students often need immediate IT support.

The teaching academics and course tutors have an even worse time as they need to remember three sets of logins for one course: the login/password for the tutor group email account, then a CASS password and finally an account on the Department's Active Directory system. Consequently, tutors also often need IT support to reset their passwords.

To summarise, the current IT set-up for online assignment submission does not allow enhanced password retrieval functionality and therefore scores low on user accessibility.

Single submission only
In the current system, students only get one opportunity to submit their assignments. If the student later on realises that the upload of files was not been complete, there is no way they can access the system again to add the forgotten file(s). As a result, in such situations, students send forgotten files via email to Registry or TALL IT support with the request to manually add the files in CASS.

Also, students occasionally wish to resubmit an assignment and, providing the assignment deadline has not passed, the Department's Registry will allow it. Consequently, this entails the old assignment being removed from CASS, the tutor group email account and the database, which again is a manual process for the IT support team.

A second problem with single submission occurs when assignments get submitted under the wrong assignment code; sometimes, students and course tutors become confused as to which assignment they are submitting into the system and submit to the wrong code. Another common problem is that a student accidentally doesn't submit all their assignment files, and when they discover this error, try to use the next assignment code to submit the rest of their work. The correction process is a manual task for the IT support team to move the files to where they should be and update the database.

In a nutshell, the limitation of single submission only in CASS causes frustration for students and as well as additional administration time for Registry and IT support.

Extensions
The third area of system limitation relates to the current extension request and approval process. Occasionally a student will request a 7-day extension but then change their mind and request the maximum 14-day extension. There is no means to change the length of the extension without a manual amendment within the system. Alternatively, the original extension request can be manually deleted from the CASS database by the IT support team. In this case, the student needs to resubmit their request. Again, this causes frustration with students and takes additional IT support time.

Email retrieval by marking tutors
The last area of concern with the current system is that tutors have to retrieve the submitted assignments from a tutor group email account. This is an issue on a number of counts. Firstly, it takes IT support time to set up the accounts both on the Department's email server and then setting up the redirects at Oxford University Computing Services (OUCS) to enable them to accept email. Secondly, at the end of the course the accounts need deleting and the forwards need removing at OUCS. The third issue centres on the extra account details needed for the email system – there is always the risk that these will be forgotten. Lastly, once inside the email system, it is a slow process to go into each posting and then download the assignment files. There may also be additional postings from the IT support team where a student has forgotten files and these have been sent on later.

In conclusion, the current email retrieval of student assignments is complex and slow which may lead to frustrated course tutors and additional IT support time.

2   Focus area 2: VLE support for courses

The second focus area is looking at improvements to encourage greater use of the VLE by the Department's course administrators and academics to support their courses.

2.1 User friendliness

The first area to baseline in this focus area is the perception of the course administrators in terms of user friendliness of the VLE. The VLE should be perceived as simple and easy to set up as well as easy to use after they have set it up. As the data collection method, we will implement a qualitative approach of conducting semi-structured interviews with individual course administrators and academics who have agreed to participate in the project. In these interviews, staff will be asked about their experiences before and after the implementation of VLE support for courses. These interviews will be partially transcribed, coded and then analysed, looking at themes such as user friendliness, time spent on individual VLE pages, errors reported etc. As we have decided to collect this data in one go, qualitative interviews will take place after the pilot implementations. Therefore, no baseline data in this area was collected at the time of this report. By choosing this data collection and analysis method we hope to answer the evaluation question at a later stage in the project: how does VLE support for courses affect staff?

2.2 IT set-up and support time

The second area of baselining is looking at IT set-up and support time. Building on the data collected for focus area 1, for focus area 2 we obtained qualitative feedback from the VLE support team to baseline the current picture on VLE set-up and support time. By adding this qualitative data to the quantitative data outlined above, we aim to enrich our evaluation base and to answer the evaluation question.

Evidence gathered
For this area, we asked questions of the VLE support team who provided their email feedback in April 2010. In addition, reports on IT support time spent supporting the Department's course administrators and academics to use VLE sites to support their courses were reviewed and analysed.

Analysis
Currently, the VLE support team are involved in three main areas:
1. Loading tutors and students onto the system
2. Duplicating sites at the start of the academic year
3. Supporting more general VLE use

The first area relates to the initial set up of a VLE course site where tutor and student logins need to be created. The second area links to the reactivation of a VLE course site at the start of a new academic year for courses that have been running in previous years. Finally, the third area looks at general VLE support tasks that can link to the issues mentioned in earlier sections of this report.

A current snapshot shows that the VLE support team spent 9h15min on support calls for the eight courses currently using the Department's VLE to support their courses during the period August 2009 to March 2010. This translates into an average of 9min support time per course per month.

It should be noted that only five of the eight courses needed VLE support. Thus, three courses did not require any support at all. The most demanding course used 30min a month on VLE support time, and VLE support requirements are heavily skewed towards the start of the academic year.

The VLE support team furthermore reported that course administrators struggle most with those tasks that they can't do because they don't have the administrator permissions for it. For example, course administrators cannot load new tutors and students onto the current

system, neither can they duplicate sites at the start of the new academic year. Therefore, most VLE support is needed in these areas.

Interpretation
From the analysis above it can be concluded that a medium level of VLE support is required at the moment; after the initial start-up tasks that course administrators don't have the permissions to do themselves, most courses need very little support.

Support times vary by course type and by month; the start of the academic year in September/October requires much more support time than other months during the year.

A main challenge in this area is the system administration rights where course administrators don't currently have the correct permissions to change some settings.

2.3 Adoption rate

The third area of evaluation on VLE support for courses looks at adoption rates. A method for evaluating this area will be to simply count the number of courses that are set up in the VLE at the end of the project. Excluding the fully online distance learning courses, which are not the focus of this activity, at the start of the project, the Department had eight courses using the Departmental VLE, with supported being provided by TALL, and a further five award bearing courses and 14 short courses using a separate installation of Moodle in the CPD division.

2.4 Usage rate

Usage rate is another evaluation aspect of this focus area. In order to establish a baseline, a survey was used to ask a group of weekly classes tutors about their current use of technology as well as their willingness to use new technology. Since many of the weekly classes tutors fall into the age group of 55+, and their Internet access and use could not be assumed, a paper-based survey was used. By reviewing this baseline data and later on comparing it to VLE usage data from VLE logs, we aim to answer the question: what are the usage rates and most commonly used tools and resources for VLE-supported courses?

Evidence gathered
In this area, data was collected using a paper-based survey with weekly classes tutors. Seventy-five tutors responded to the survey, which was administrated in December 2009. The survey consisted of three closed and two open questions on Internet and computer usage. The questionnaire also contained three questions on more general student demographics. For more detail on the reported survey results, please see Appendix 2.1.

Analysis
The survey results show that 99% of respondents have access to a computer and the Internet at home. 91% check their email daily, and 98% do this at least weekly.

While 32% only use technology when they have to, 51% actually enjoy exploring how to make use of new technologies. Interestingly, technology use for most weekly classes tutors means the use of PowerPoint.

Some are very enthusiastic users:

> "I use a computer all the time for PowerPoint, set up documents and scanning technical drawings" (Comment weekly classes tutor)

Others are more reluctant to use more technology in their course delivery:

"I stick to using 35mm colour slides to illustrate my courses. It would be too laborious to computerise several thousand slides even if I had the equipment and know how." (Comment weekly classes tutor)

Time and skills level seem to be factors that influence technology perception and actual Internet use; many course tutors feel that technology use is not appropriate for their subject areas, e.g. courses in humanities.

In the comments section of the questionnaire, many tutors stated that they would like more training on technology use.

Interpretation
The project team was surprised by the high computer and Internet usage rate shown by weekly classes tutors. One reason why this questionnaire had been administered on paper was the assumption that an online questionnaire would not be appropriate for the weekly classes tutors due to their assumed low technology use.

The survey results suggest that much more communication with weekly class tutors could be moved to email only. In order to avoid discrimination of (the very few) tutors who are not comfortable using email, this could be done with an opt-out clause where tutors can indicate that they still prefer to get tutor information by postal mail.

If the Department was to respond to the training needs identified, skills workshops in using PowerPoint and accessing free Internet resources in the various subject areas would be highly recommended.

2.5 Customer satisfaction
In this area of evaluation, we looked at the perceived customer satisfaction when using VLE-supported courses. In terms of baseline data collection method, we decided to include questions in the online survey already described in section 1.5. By analysing the data retrieved from our online surveys, we established students' expectations towards a VLE to support a course. We were then in a position to provide a baseline on how VLE support for courses affects the satisfaction of students.

Evidence gathered
The evidence presented in this section was collected from several online student questionnaires with the goal to enquire about attitudes towards online support for their courses. The total number of respondents was 34, of which 14 students were from Archaeology, 16 from Psychodynamic Counselling and 4 from Global Health studies. The data was collected in mid and late 2009. These results were combined with comments from additional focus groups conducted with students from the Paediatric Infectious Diseases (PID) programme, in which a total of 17 students participated. For more details on the reported survey results, please see Appendix 2.2.

Analysis
The students were first asked about their overall opinion of using a course website: "Do you think the course website for your course will be useful?" 72.4% said 'yes' and 27.6% were 'not sure'. No student responded with 'no'.

The next question enquired about other ways in which technology could be used to support their courses. This question allowed free text answers and some students were very positive about additional technology enhancements:

> "Articles online etc. would be excellent, because I would be able to print them off at home. Saves me time etc. instead of waiting to photocopy etc."

Other students were more distant about further use of technology:

> "So far the technology has been rather a nuisance for me. I wasted a lot of time trying to register my University card."

Additional data was taken from the PID focus group. Here, 76% of the respondents found the VLE generally easy to use. Whilst the discussion forum within the VLE was perceived as most useful, the blog was perceived as less useful. Furthermore, 70% of the PID students would find the simplification of logins very useful as well as the inclusion of more study material in the VLE (58%).

88% of the focus group students felt positive that their confidence in using technology had increased 'a bit' or 'significantly' after the introduction to the VLE.

Interpretation
The analysis above shows that most students have a positive attitude towards the introduction of a course VLE. Students who have a negative perception on technology in general will be less likely to have a positive attitude towards the use of a VLE to support their course.

The biggest challenge of introducing a VLE is to keep things simple and to harmonise logins across student systems. If this can be achieved, then a VLE is a great tool for students and academics to share and discuss study materials.

2.6 User acceptance

A last evaluation step in this focus area will be to look at course administrators and academics and their acceptance of the templates that help generate an online presence for courses in the VLE. An overall positive rating of the templates will be used to measure success in this area. Data from emails, interviews and general feedback will be collected and analysed in a case study after the introduction of these new templates. As this is being implemented at the time of writing this baseline report, no baseline data is currently available in the area of user acceptance.

3   Focus area 3: Online delivery of generic content

Focus area 3 looks at online delivery of generic content to support the Department's activities. More specifically, this focus area aims to identify and develop reusable, customisable versions of generic content materials to be used in a VLE.

3.1 Customer satisfaction

The first area of evaluation looks at the customer satisfaction aspect of generic content enhancements in VLEs. Similar to customer satisfaction in the previous two focus areas, we will be looking for increased student satisfaction as a measure of success. For our baseline data collection, we used the same online survey as in focus areas 2 while adding specific questions on generic content. This way we hope to create a baseline for our evaluation question about how online generic content affects the satisfaction of students.

Evidence gathered
The evidence presented in this section was – similar to the evidence in section 2.5 – collected from several online student questionnaires with the goal to enquire about attitude

towards online delivery of generic content. The total number of respondents was 34, of which 14 students from Archaeology, 16 from Psychodynamic Counselling and 4 from Global Health studies. The data was collect in mid and late 2009. These results were joined with comments from additional focus groups conducted with students from the Paediatric Infectious Diseases (PID) programme, in which a total of 17 students participated.

Analysis
In the main questionnaire, we asked students "How useful do you think the following are in a course website?" giving them various options to rate from 'very useful' to 'not at all useful'. Students responded that they would find slides and lecture notes, administrative information relation to the course as well as reading lists 'very useful' whilst career information and information on Oxford was perceived as less useful.

During the PID focus groups, students also expressed their views on this subject. Here, the provision of more study materials was stated as 'very useful'.

Interpretation
The results show that some areas in the VLE are perceived as more important than others. The student feedback on perceived usefulness doesn't show, however, whether they are satisfied with the online generic content currently offered.

A limitation to this analysis is that the questions in the questionnaires administered were not specific enough to the subject of this focus area. Therefore, no real baseline could be established on students' attitude in this area that might later on lead to customer satisfaction.

It could be reasoned that that this limitation is not critical to the baseline of the focus area as students are not the main benefactors of the enhancements intended for the online delivery of generic content anyway; this focus areas looks more at future benefits to be yielded for academics and course administrators.

3.2 User acceptance
The second area of generic content evaluation looks at the user acceptance of generic content. Key measures of success would be overall positive ratings by students and staff that have used the new online generic content introduced during the lifetime of the project. As the research method, we will both design an online questionnaire for a specific group of students, and gather data from different sources, such as emails, interview transcripts, feedback and observations of administrators and academic staff. This data will be collected and analysed after the implementation of the content. At the time of this baseline report, none of this data was available for collection. After the pilots, we hope to answer the question whether the online delivery of generic content is acceptable to staff and students.

3.3 Usage rate
The evaluation area on delivery of generic content looks at usage rates of generic content by students, administrative and academic staff. A measure of success would be a high percentage of staff choosing to include the generic content in the VLE and a high number of students accessing it. This should lead to a reduction in the duplication of efforts in creating the same generic content for different courses. To evaluate this development, we will analyse time series data of the VLE logs and conduct semi-structured interviews with administrators and academic staff. Again, we will be able to collect this data at a later stage in the project. By analysing and evaluating this data set, we aim to answer the question: what are the overall usage rates and most used generic online resources?

3.4 Teaching and administration

The last baseline area looks at the amount of academic and administrative time spent on creating or delivering generic content. Here, the general creation of generic content, as well as the specific example of the course handbook, will be looked at. A number of emails, interview transcripts and anecdotal information have been collected on this aspect of generic content. Also, course schedules and data on current preparation time of course handbooks have been looked at. The combination of this data can be used to give a baseline for the evaluation question on whether online delivery of handbooks affects the course administration time required for producing this essential course resource.

Summary of current status
Looking at areas of generic content that could be harmonised and accessed through the VLE, areas that do not need to be delivered during course session are: online induction, library skills and study skills.

Analysing course schedules and taking a representative sample of award bearing courses delivered over the last 12 months, it can be estimated that between one and four hours of face-to-face teaching time is spent delivering generic content. Slightly more time is spent delivering this on lower level courses.

A cross-University review of skills training suggests that most generic skills are delivered in an integrated way with course content and the Department's programme schedules bear this out. This does not indicate how much informal teaching time was spent answering questions in these areas, which cannot be captured in course schedules.

Until now, each course in the Department has its own handbook in the form of a Word document, and each handbook is updated separately on an annual basis. This way of preparing generic content in silos was recognised as an area of potential savings at the start of the Cascade project.

The first attempt to move away from the static Word documents towards creating an online course handbook including sections of generic content was undertaken in 2008 for a new online PG Certificate programme. However, this first attempt to provide the course handbook online and to harmonise generic content across programmes was not successful. The Department recognised, at that time, that this was due to a number of factors including the diversity of handbooks and processes and concluded that strategic direction at a senior level was required to resolve these issues before any kind of technical solution could be successfully implemented.

The areas examined above indicate that by harmonising certain instances of generic content across different programmes of study, significant time savings can be achieved for both academic and administrative staff.

4 Focus area 4: Course design

Focus area 4 looks at innovative course design and the increased use of appropriate technology in course delivery.

4.1 Technology engagement

The first evaluation area looks at engagement with technology when designing new courses. A measure of success would be to find more courses using technology as part of their course delivery. As amendments have been made to the new course proposal form presented at the Department's academic board meetings, the corresponding sections of the forms were scanned in the baseline data collection process.

In order to evaluate the project in terms of technology engagement, a case study will be written on the extent to which new courses have considered using technology as part of their course delivery plan. A technology engagement rate could be calculated as well. Finally, we hope to answer the evaluation question about how this focus area has affected technology engagement in new course design.

Summary of current status
In order to baseline this area, two steps were taken. First, old course proposals – those submitted to the Department's Academic Board for approval between October 2007 and October 2008 – that do not have a section on technology use in course delivery were scanned. Next, data was gathered from the new course proposal forms (those submitted for approval since October 2008), which include a section on technology use in course delivery.

Prior to the Cascade project, different programmes within the Department had developed c. 30 fully online courses in close contact with the TALL team. Also, about 13 Award bearing (out of c. 90) courses of mostly face-to-face delivery across the Department were supported by a VLE space. The rest of the Department's course and programmes had no VLE support.

Between October 2007 and October 2008, only two new course proposals were submitted to the Department's Academic Board for approval and both outlined the intent to integrate some technology elements in course delivery; however as the uptake of technology prior to this indicates above, this was atypical. In October 2008, the course proposal form was amended to include several new questions which required justification of technology use, or not, in several different contexts.

An analysis of data after the proposal form amendment shows that the majority of academics proposing new programmes, now want to use technology for course delivery: Twelve proposals were received in total, of which seven plan VLE support, two outline significant plans for delivering elements of the course online, one proposes the majority of course content to be delivered online, with only two not planning to incorporate any online elements.

Clearly, engagement with online course elements has gone up since the project has begun. However, many factors may have contributed to this development, and it is difficult to judge how much can be directly attributed to the Cascade project work.

4.2 Technology confidence

Confidence with technology is an enabler to the update and wider use of technology. A measure of success of this evaluation area would be to increase technology awareness and confidence amongst academics in the context of new course design. Therefore, the project plans to develop supporting resources and run workshops aimed at academics to discuss course delivery options and the use of technology. In conjunction with these we will collect feedback from participants. None of this data was available at the time of the baseline report. By analysing the feedback information collected, we hope to be able to answer the next evaluation question: how has the support available on course design affected academics' confidence in the area of technology use in course design?

4.3 Technology best practice

The last evaluation area in course design looks at best practice when it comes to the use of technology in course delivery. A measure of success would be to demonstrate examples of best practice where technology has been successfully implemented during the course design stage. As the data collection method, we recommend evaluating existing examples of course design in a case study explaining the various elements and considerations that led to the choices of technology used at the end of the project. By using this method, we hope to

answer our last evaluation question: how have academics successfully used technology in course delivery?

Summary of current status
This summary of current status in the area of technology best practice refers to new course proposal forms submitted during the project and an exiting audit of provision.

From the current course proposals it is clear that all the proposed uses of technology are reasonable from a pedagogical perspective. However, the practical implications of some of these decisions, especially in the area of staff workload and the cost of course development, are not always understood by academics.

Prior to the start of the Cascade project, the Department had numerous examples of best practice for fully online learning courses, but very few for blended learning or for VLE support for face-to-face courses. This is partly due to the fact that the fully online courses are supported by a dedicated online learning development team who work closely with Departmental academics, who act mainly in a supervisory role providing academic support for commissioned part-time tutors. While some Departmental academics have become relatively expert in elements of online learning, many have found it hard to translate this expertise into using technology to support their own face-to-face teaching.

5 Focus area 5: Online payment and enrolment

Focus area 5 looks at the wider use of online payment and enrolment for the Department.

5.1 Administration handling time

In order to baseline the online payment and enrolment part of the project, we looked at administration handling time first. As the data collection method, we decided to run a time motion study. Together with the Department's manager of online weekly classes, we depicted a process flow diagram that included all steps required in the paper-based enrolment and payment administration. We then ran a time motion study to collect time data on the various administrative steps involved. By doing so, we hope to have collected a sound baseline in order to evaluate the question: how does online payment and enrolment affect the total enrolment handling time?

Evidence gathered
Time motion data was collected on paper-based enrolments in April 2010. The Department's manager of online weekly classes, provided five samples with accurate time measures. For more details on this time motion data, see Appendix 5.1.

Analysis
The end-to-end process of paper-based enrolment and payment can be split into three parts:
1. Receipt of course enrolment
2. Creation of student record and course registration
3. Processing of student payment

The data collected shows different total times it takes to enrol a student in this three-step process. The longest sample of end-to-end student enrolment and payment process took 13:45mins. In this instance, the system did not hold an existing student record and the administrator needed to create a new one. Also, the payment method – in this case invoice to employer – added to the total time. In contrast, the shortest enrolment time was 2:25mins. In this sample, the student record already existed, i.e. the enrolment was from a returning student, and the course payment was done by credit card.

The average time it takes to process a paper-based enrolment is 5:45mins when correcting outliers by excluding the longest and the shortest enrolment times from the calculation.

Interpretation
The administration handling time of paper-based enrolments depends on payment method – payment by credit card being quicker than payment by invoice – and pre-existence of a student's record.

5.2 Adoption rate

Once we have collected administrative handling time, we will correlate this with adoption rates of the online payment and enrolment system. In terms of the data collection method, we collected baseline time series data from the Department's student record database. The data outlines programmes by course type and gives information whether online enrolment and payment is possible. The data also shows how many online vs. paper-based enrolments have been made in the last two years. The analysis of this baseline data will help us to answer the evaluation question: what is the adoption rate of online payment and enrolment in the Department?

Evidence gathered
In order to baseline the adoption rate of online enrolment and payment, we collected records with transaction counts from the Department. The files indicate the number of paper-based and online enrolments, by course type, on a monthly basis. The data was collected for the last two academic years before the start of the project: August 2007 to July 2008 and August 2008 to July 2009. The data source of these records is the Departmental database called InfoSys.

Analysis
On 30 April 2010, a snapshot of data from InfoSys found 1,412 course records for the current and future academic years, of which 424 courses were tagged as live courses with information on the Departmental website. The remaining 988 courses were either courses that were not marketed online, that had already finished or that had not started taking enrolments yet.

Of the 424 live courses, 297 were marked with the flag 'EnrolOnline' which means that they have the online enrolment and payment functionality enabled. Therefore 297 out of 424 (70.04%) of courses currently marketed on the Departmental website take online enrolments, and 297 out of 1412 (21.03%) of all current and future courses currently in InfoSys, but not necessarily yet open for enrolment, are accepting online enrolments.

If we dig deeper into the number of student online enrolments for programme types offering the option for online enrolment, we find the following picture of growth over the last two and a half years:
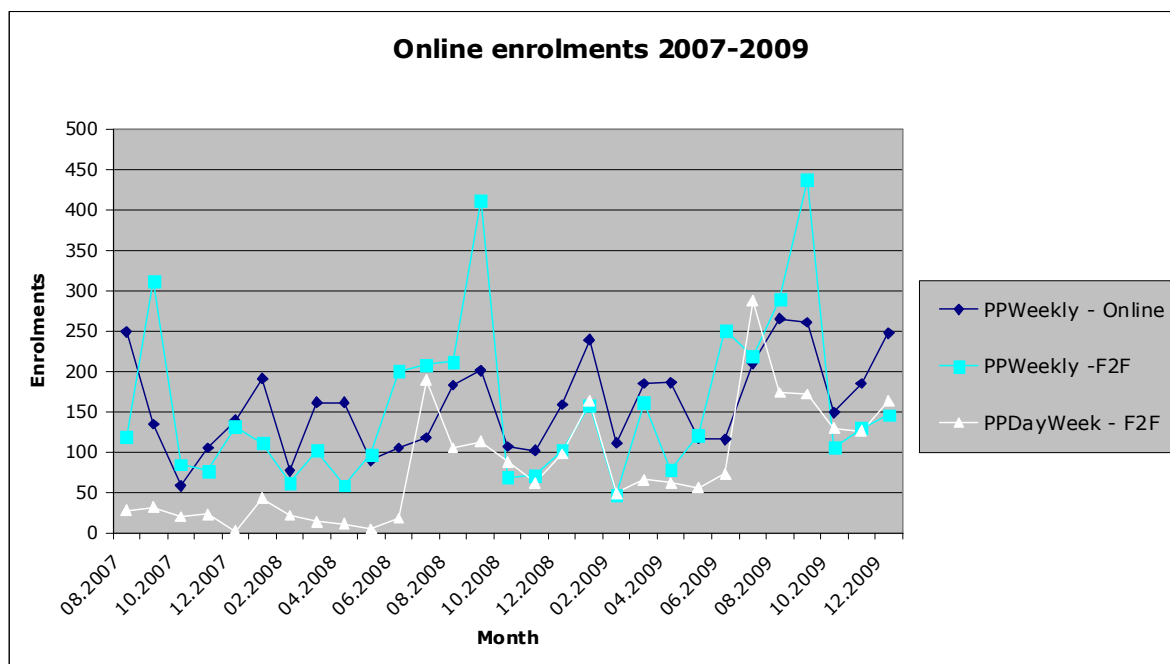
Figure 2: Online enrolments in PP by month

Figure 2 shows the number of online enrolments, by month, for three different course types offered by the Department's Public Programmes division: 1. weekly classes delivered online (PPWeekly – Online), 2. weekly classes delivered face-to-face (PPWeekly – F2F) and 3. day and weekend schools delivered face-to-face (PPDayWeek – F2F). Overall the graph shows that enrolment numbers vary by month and that the total number of online enrolments has been increasing steadily. In fact, further analysis shows that the total number of enrolments in 2007/2008 in "PPDayWeek" was 6,206 and the number of online enrolments in this academic year was 372 (6% of total programme enrolments). In the next academic year 2008/2009, the total number of student enrolments in "PPDayWeek" had decreased to 5,098, but the online enrolments had increased to 1,078 (now 21% of total enrolments, thus a growth of 15% despite an overall decline in enrolment numbers).

Figure 3 provides a summary of the proportion of enrolments for the Department's day and weekend schools and weekly classes (both those delivered online and face-to-face) that were taken online compared with the proportion received on paper. For the weekly classes programmes ("PPWeekly"), the percentage of online vs. total enrolments was already higher in 2007/2008 with 44% of enrolments taken online in comparison to 6% for day and weekend schools ("PPDayWeek"). In 2008/2009, this percentage of online enrolments grew to 53% of total enrolments, a growth of 9%.
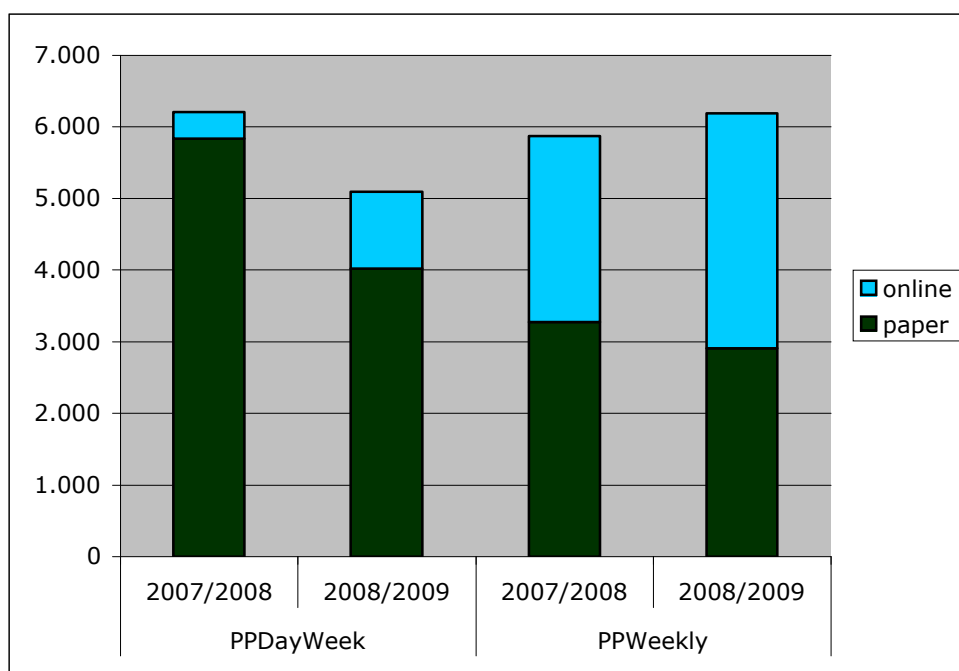
Figure 3: Public Programme enrolments by type

Interpretation
The data shows that a relatively high number of live courses already have online enrolment and payment functionality enabled (21% of total courses; 70% of live courses with web presence). Unfortunately, no data was available to show the development of this online enrolment functionality ratio as time series from 2007 until today. As a result, no interpretation can be made on whether the Cascade project influenced this high percentage or not. We therefore suggest running a monthly report that indicates the incremental number of 'EnrolOnline' enabled courses to keep track of the changes from now until the end of the project.

The examples of the day and weekend schools and weekly classes programmes are provided as examples to illustrate online enrolment growth. This doesn't, however, indicate that all programmes have had increasing numbers of online enrolments over the last two years. We therefore suggest monitoring online vs. paper enrolments by course type on a monthly basis for the remainder of the project to better understand the effect the Cascade project's activities have on online enrolment uptake.

5.3 Customer satisfaction

The last area of baseline data is the attitude towards online payment and enrolment that could lead to customer satisfaction when using the method of enrolment. By analysing the answers from a student online survey, we aim to establish whether the experience of using online enrolment is positive and thus hope to provide a baseline for the evaluation question on how online payment and enrolment affects the satisfaction of students.

Evidence gathered
Data was collected from a student online survey that had been completed by 1,500 students at the time this report was written. This questionnaire, which was set up with the aim to get

student feedback after online enrolment, is a general survey conducted by the Department since April 2009. For survey results, please see <u>Appendix 5.2</u>.

Analysis
The survey shows that 69.9% of students found the online enrolment form very clear. The concerns that students had when enrolling online were around the online payment. 9.6% said that they were 'concerned' or 'very concerned' about using the Department's online payment process. This can be contrasted by almost half of the students (49.9%) who said that they were 'unconcerned' or 'very unconcerned' about online payment.

1,300 out of 1,500 respondents (86%) gave the Department's online enrolment process an overall grade of 8 out of 10 or above.

Comments from individual students qualify the statistics above further:

"Considering I am elderly and not a whiz kid online I found it remarkably easy!"

Students also suggested various areas of functionality improvements:

"I was enrolling for myself and my daughter there is no facility for a multiple person enrolment with one payment."

"It would be good if it could remember details if you'd enrolled online before."

"Might be a good idea to have "Verified by Visa" to give peace of mind for payment process."

"I'd suggest having a link to the course textbooks at Amazon."

Interpretation
The current online enrolment system seems to produce satisfactory results among the majority of students who use online enrolment and payment.

Some students are dissatisfied about the process, and suggest functionality enhancements in the following four areas:

1. Allow multiple enrolments in one payment
2. Remember return students' address details
3. Use secure payment, e.g. "Verified by Visa"
4. Enhanced booking functionality linking to relevant book sites and online retailers

In order to ensure customer satisfaction at the end of the project, the project will try to respond to student online enrolment needs as part of the Cascade project developments.

Appendices

Appendix 1.1: IT support time spent supporting online assignment submission (TALL IT support team, Aug07 – Jul09)

	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Total mins	Total hrs
Course 1	120	60		20	15	80	30	110	70	95	10	135	745	12.42
Course 2	45	30	30	90	55	20		55	90	30	20	15	480	8.00
Course 3			10	30			105	25	55		15	25	265	4.42
Course 4	15	50	20	110	100	180	75	90	65	35	10	15	765	12.75
Course 5		15	110			50		80	15	10	10	15	305	5.08
Course 6											30		30	0.50
Course 7				170	35	50	30	20	110	25	10	10	460	7.67
TOTAL	180	155	170	420	205	380	240	380	405	195	105	215	3050	50.83

	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May 09	Jun-09	Jul-09	Total mins	Total hrs
Course 1	40	10	15	25	25	90	30	50	10	50	125	145	615	10.25
Course 2	10	5	10	140	25	70	80	200	125	140	70	20	895	14.92
Course 3	5	30	20	15	115	30	10	110	10	30	40	10	425	7.08
Course 4			100	110	30	10	60	90	15	65	0	0	480	8.00
Course 5	10			0	0	0	0	0	0	0	0	0	10	0.17
Course 6				0	15	30	80	10	135	30	0	60	360	6.00
Course 7		10	5	175	35	265	45	130	150	95	55	0	965	16.08
Course 8	20	115	10	155	0	170	65	30	145	0	110	95	915	15.25
Course 9	40	75		85	0	20	30	5	10	35	25	15	340	5.67
TOTAL	65	55	150	465	245	495	305	590	445	410	290	235	3750	62.50

Appendix 1.2: Administration handling time for assignment submission (Registry staff, April 2010)

Time	Task	Manual			CASS		
		Who	Time taken	Comments	Who	Time taken	Comments
During course set-up	Assignment set-up	Registry Assistant	5 minutes	per assignment	Not Registry, Mike?		
Prior to due date	Check if there are any extensions that affect the due date	Covered below	N/A	N/A	Covered below	N/A	N/A
At time of submission	Receipt of submissions (issuing receipt)	Reception / Registry Assistant	Seconds (if reception is asked by student for signature)	Students write their own receipts at reception and they are not issued if work is posted direct to the Registry	N/A	N/A	N/A
Preparation for marking (getting script to marker)	Photocopying scripts	N/A	N/A	N/A	N/A	N/A	N/A
	Stuffing envelopes	Registry Assistant	15 minutes		N/A	N/A	N/A
	Posting	Central	?		N/A	N/A	N/A
Marking							
After marking	Receipt of marked scripts	Registry Assistant	15 minutes	Includes time to record marks			
Preparation for moderation (getting scripts to moderator)	Photocopying scripts	Registry Assistant	10 minutes	Depends on number of assignments	N/A	N/A	N/A
	Stuffing envelopes	Registry Assistant	10 minutes		N/A	N/A	N/A
	Posting	Central	?	Also a lot of work is returned via Registers	Registry Assistant	10 minutes	Files are generally sent to External as a zipped attachment **outside of CASS**
After moderation	Receipt of moderated scripts	Registry Assistant	10 minutes		Registry Assistant	10 minutes	
Student notification	Returning marked scripts to students	Registry Assistant	30 minutes	Depends on number of assignments	Registry Assistant	10 minutes	Depends on number of assignments
	Notifying students of marks	Registry Assistant	N/A	Done by return of work	N/A	Done by return of work	
Archiving	Storage of scripts	Registry Assistant	2 - 3 days	Once a year, for each Registry Assistant	TALL	?	
	Retrieval of script when requested	Registry Assistant / Registry Supervisor	10 minutes?	Never actually been asked to find something once archived.	TALL	?	
	Disposal of scripts	Registry Supervisor	2 days	Once a year	TALL	?	
Extension requests	Receipt of request	Registry Assistant	2 minutes	Depends how request is received	Registry Assistant	2 minutes	
	Passing request on to decision maker	Registry Assistant	5 minutes - 30 minutes	Depends how request is received and whether it needs additional authorisation.	Registry Assistant if more than 2 weeks.	5 minutes - 30 minutes if more than 2 weeks.	Automatic unless more than 2 weeks
	Receipt of decision	Registry Assistant	2 minutes	Depends how decision is received	Registry Assistant	2 minutes	
	Verification of decision	Registry Assistant / Registry Officer	2 minutes		N/A	N/A	N/A
	Notifying student of decision	Registry Assistant	5 minutes		N/A	N/A	N/A
	Notifying tutor and other course personnel of decision	Registry Assistant	5 minutes		N/A	N/A	N/A

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Appendix 1.3(a) Student online survey (Archaeology and Psychodynamic Counselling courses, Survey Monkey, Sept/Oct 2009)

Students: Which of the following apply to you? (Tick all that apply.)

Answer Options	Response Percent	Response Count
I currently hand write my assignments	3.4%	1
I would be confident about the security of submitting my assignments online	72.4%	21
I have the technical skills to submit an assignment online	82.8%	24
If I submitted an assignment online, I would like to receive confirmation of receipt by email	89.7%	26
I would welcome the additional time the option of online submission would offer in meeting a deadline	58.6%	17
I would be happy to receive my work back electronically	82.8%	24
I think that online assignment submission would speed up turnaround of my assignments	55.2%	16
I prefer handwritten comments on my assignment	13.8%	4
I find typed feedback easier to read	41.4%	12
I currently submit my assignments by hand	89.7%	26
I currently submit my assignments by post	3.4%	1
answered question		**29**
skipped question		**1**

Appendix 1.3(b) Staff online survey (Survey Monkey, Sept/Oct 2009)

Staff: Which of the following apply to you? (Tick all that apply.)

Answer Options	Response Percent	Response Count
Many of my students hand write assignments	8.0%	2
I would be technically confident handling assignments online	76.0%	19
I am confident that online assignment handling is secure	64.0%	16
I do not want to spend more time at a screen	12.0%	3
I think that online assignment submission would speed up the marking process	72.0%	18
I would welcome being able to use plagiarism detection software	28.0%	7
I have used online assignment handling systems in the past (in the Department or elsewhere)	48.0%	12
I am worried about having to remember more passwords	24.0%	6
I think typing feedback will take longer than writing it by hand	16.0%	4
I am worried about students submitting assignments in file types I cannot read	40.0%	10
I think online assignment submission will be better for students	20.0%	5
I do not want to have to print out assignments	56.0%	14
I am worried about having a good enough computer to deal with marking assignments online	4.0%	1
In my subject it is difficult to produce electronic assignments e.g. maths notation or Cyrillic script	12.0%	3
I am worried that online submission will make it easier to plagiarise	4.0%	1
I think online assignment submission will be more stressful for students	16.0%	4
answered question		**25**
skipped question		**2**

Appendix 2.1: Weekly classes tutor survey (paper-based, Dec 2009)

	No.	%
2. Which of the following apply to you? (Tick all that apply.)		
I have access to a computer at home	74	99%
I have access to the Internet at home	74	99%
I only use technology when I have to	24	32%
I enjoy exploring how to make use of new technologies	38	51%
I have taken an online course	11	15%
I have taught an online course	12	16%
I have participated in an online forum	16	21%
I have a presence on a social networking site (such as Facebook or MySpace)	20	27%

3. Please indicate how often you use the following:

	Often (daily or almost daily)		(once or twice a week)		Occasionally		Rarely		Never		No answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
A word processor	51	68%	9	12%	1	1%	1	1%		0%		0%
The Internet	62	83%	4	5%	5	7%	1	1%	1	1%	1	1%
Email	68	91%	5	7%		0%		0%		0%	1	1%
Presentation software	12	16%	17	23%	11	15%	18	24%	7	9%	8	11%
Electronic library	13	17%	18	24%	14	19%	13	17%	11	15%	6	8%

4. Please indicate how often you:

	Often (daily or almost daily)		(once or twice a week)		Occasionally		Rarely		Never		Never heard of it		No answer	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Read blogs	2	3%	3	4%	9	12%	15	20%	42	56%		0%	4	5%
Comment on blogs		0%	2	3%	3	4%	8	11%	55	73%		0%	5	7%
Update a blog		0%	1	1%	1	1%	4	5%	61	81%		0%	6	8%
Listen to podcasts	2	3%	5	7%	11	15%	16	21%	37	49%	1	1%	4	5%
Read a wiki	5	7%	23	31%	18	24%	16	21%	8	11%	1	1%		0%
Add/edit a wiki		0%		0%	1	1%	7	9%	57	76%	4	5%	5	7%
Use a media sharing site	1	1%	7	9%	13	17%	14	19%	36	48%	2	3%	4	5%
Contribute to a media sharing site	1	1%	1	1%	1	1%	5	7%	56	75%	4	5%	5	7%
Use newsfeeds	1	1%	1	1%	2	3%	2	3%	45	60%	16	21%	6	8%
Use Internet telephony	4	5%	4	5%	4	5%	10	13%	39	52%	6	8%	4	5%
Use Internet banking	9	12%	12	16%	10	13%	8	11%	29	39%	1	1%	4	5%
Use instant messaging	3	4%	3	4%	3	4%	2	3%	53	71%	5	7%	6	8%
Shop online	2	3%	10	13%	22	29%	20	27%	10	13%	1	1%	2	3%
Use online office tools	7	9%	6	8%	4	5%	11	15%	34	45%	9	12%	5	7%
Use Twitter		0%	1	1%	2	3%	2	3%	61	81%	4	5%	5	7%
Browse the web from a mobile	1	1%	2	3%	4	5%	5	7%	54	72%	5	7%	5	7%

Appendix 2.2: Combined student online survey results (Archaeology, Psychodynamic Counselling and Global Health students, Survey Monkey, Sept/Oct 2009)

Do you think the course website for your course will be useful?

Answer Options	Response Percent	Response Count
Yes	72.4%	21
No	0.0%	0
Not sure	27.6%	8
answered question		**29**
skipped question		**5**

Appendix 5.1: Administration handling time for paper-based enrolments (Manager of online weekly classes, April 2010)

Steps	Activity	Sample 1	Sample 2	Sample 3	Sample 4
1	Pick up form from fax machine or print from email	7 April 15.04	8 April 10.13	8 April 10.22	9 April 11.21
2	Open InfoSys	5 secs	5 secs	5 secs	5 secs
3	Go to student section within Infosys and start query with student's name	10 secs	10 secs	10 secs	10 secs
4	Evaluate query result	5 secs	5 secs	5 secs	5 secs
	If no student record exists, continue with step 5; otherwise go directly to step 7	No	No	Yes	No
5	Create new student record	120 secs	240 secs		300 secs
6	Validate new student record and press 'confirm'	5 secs	5 secs		5 secs
> 7	Register student for course	40 secs	40 secs	40 secs	40 secs
8	Process student payment	20 secs	20 secs	20 secs	inv.employer 240 secs
9	Send hard copy of enrolment and payment confirmation to student or send payment (soft copy) request in case of payment by invoice	30 secs	30 secs	30 secs	write email & attach invoice 240 secs
	If payment type is by invoice, continue with step 10; otherwise go directly to step 13	to 13	to 13	to 13	
10	Receive and file confirmation from finance that invoice was paid to the account				
11	Enter payment confirmation in Infosys				
12	Send hard copy of enrolment and payment confirmation to student				
> 13	In Infosys, process batch report per payment type	30 secs	process with sample 3	30 secs	
14	Send batch reports to finance via fax or internal mail	20 secs		20 secs	

Appendix 5.2: General online enrolment student survey (Survey Monkey, Apr 2009 – Apr 2010)

When you enrolled, how clear did you think the enrolment form on the website was?

Answer Options	Response Percent	Response Count
very clear	69.9%	1046
clear	27.0%	404
neither clear nor unclear	1.9%	28
unclear	0.7%	11
very unclear	0.5%	8
answered question		**1497**
skipped question		**3**

Overall, how do you rate the Department's online enrolment process, on a scale of 1 to 10 (where 1 is very poor and 10 is very good)?

Answer Options	Response Percent	Response Count
1	2.0%	30
2	0.7%	10
3	0.9%	13
4	0.6%	9
5	2.1%	31
6	1.3%	19
7	5.2%	77
8	16.4%	244
9	32.1%	478
10	38.8%	578
answered question		**1489**
skipped question		**11**