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Factors to consider for the effective use of the Moodle assignment activity in online submission of work

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This paper investigates use of the Moodle assignment activity at the University of Bath, with a particular focus on its adoption for submitting student work online. The objective of this report is to highlight the ideas which will need consideration if you are introducing the assignment activity for submission of work, and to provide a simple and practical starting point for its introduction.

Whether you are exploring the assignment activity from the perspective of an individual teacher, an administrator or with responsibility for a unit or programme of study, this report aims to:

- offer a structured approach which will raise awareness of the considerations that need to be taken into account during the introduction the assignment activity
- highlight support available for those adopting the activity into their learning and teaching
- provide case studies demonstrating a variety of approaches to using the assignment activity as a basis for further discussion and exploration

What is the assignment activity?

The assignment activity is a simple and effective tool which allows for the submission of digital content online and which can be easily added to Moodle units as a submission point for summative assessment. It can be used to manage the submission of short coursework, project work and assignments. Students can upload files for marking and feedback in any digital format: Word files, PDFs, PowerPoint presentations, spreadsheets, digital images, video or audio.

Why use the assignment activity?

- Receives a **positive response from students** who increasingly expect to be able to submit assignments electronically
- **Streamlines administrative processes** – especially for large cohorts – replacing time-consuming collection and sorting of paper hand-ins or e-mail submissions
- Allows upload of **digital content** for marking – computer programs, digital video, audio and images
- Provides an **easy submission point** for off-site learners – particularly students who are on placement and distance learners
- Offers **easy access to student work online** for marking and feedback from home or on campus – especially helpful for external tutors or markers
- Allows completion of **marking, comments and feedback online** - assignments can be annotated and returned to students in digital format
- Creates a ready-made **digital audit trail** of assignment submissions, grades and feedback which can be easily accessed by external examiners

Where to start?

When planning for online submission of work, considering the stakeholders in the process, the technical aspects of using the Moodle assignment activity, and the administrative processes required to support this can be helpful. A 'swim lanes' approach (developed by Geraldine Jones, the e-Learning Officer in the Department of Education) can help structure its introduction. This highlights opportunities and complexities brought about by adoption of the assignment activity and is recommended as a useful starting point for discussions (see figure 1).

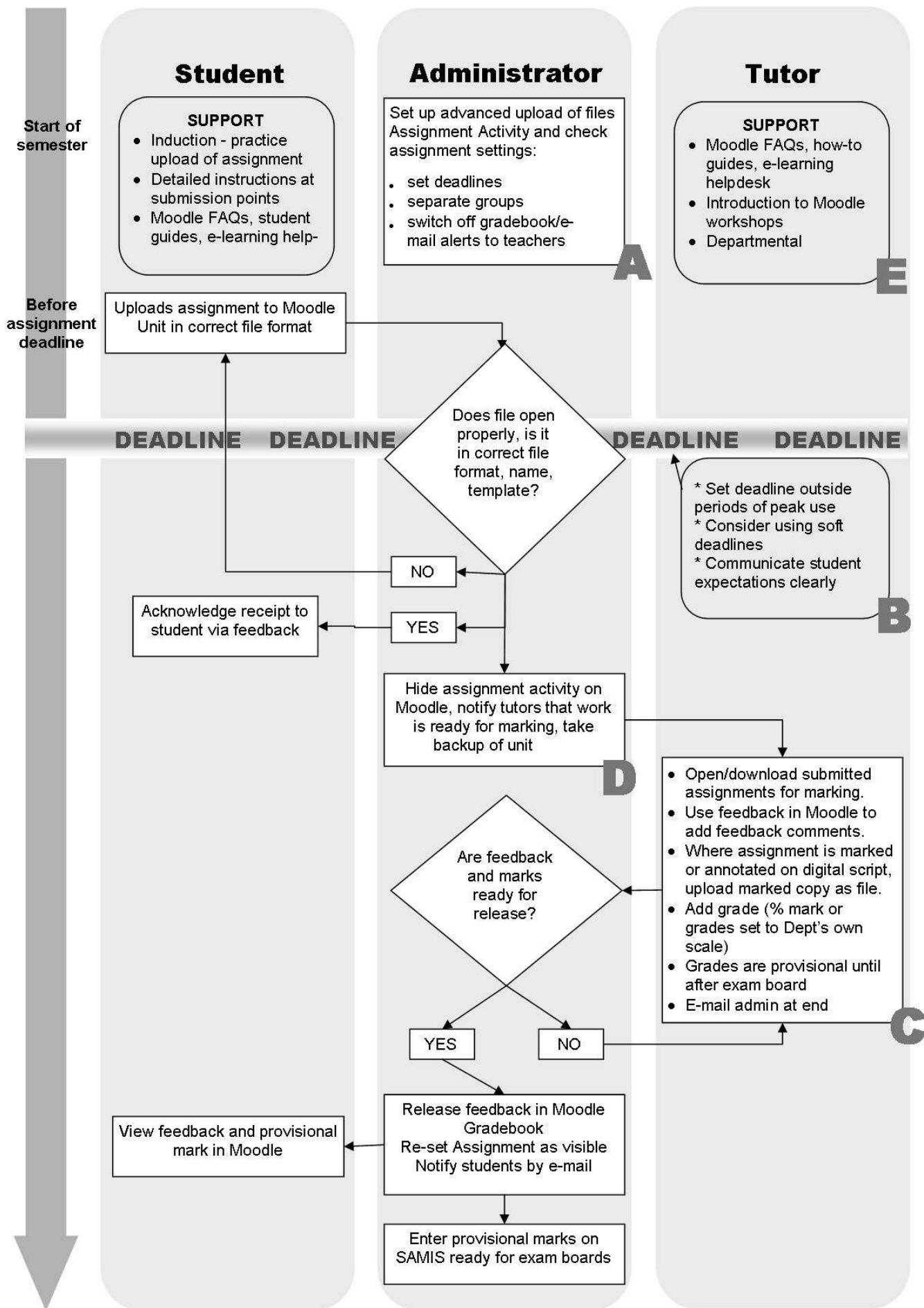


Figure 1 – ‘Swim lanes’ for planning the online submission of work
An approach developed by Geraldine Jones, e-Learning Development Officer in the Department of Education

A What will need setting up?

As an individual tutor, when introducing online submission of work to a unit, you may find the assignment activity simple enough to use for online submission without needing to provide extensive procedures and instructions. However, where online submission of work has been developed at a departmental level, a standard approach to using the assignment activity is often adopted. Standardising the structure of assignment points and the information delivered (see figure 2) can be beneficial. It helps clarify expectations and improve accessibility for all users: students, administrators and tutors.

Module 2 Assignment

Please open and read the following three short documents. You will find Danny's examples of assignment feedback particularly useful in understanding the common mistakes that need to be avoided with this particular assignment.

We strongly advise you to read all three documents before writing your assignment:

Module 2 Assignment Brief
Module 2 Assignment Grading Criteria
Module 2 Assignment - Examples of Feedback

Writing, saving and submitting your assignment:

- Write your assignment using the Module 2 assignment template. If you don't have access to Microsoft Word, we recommend you download OpenOffice, an excellent office suite that is free of charge and allows you to open, edit and save Microsoft Office files.
- If your assignment consists of more than one document, make a zip file.
- Name your file using your own name and the module code as follows:

Surname_Firstname_AR50122 (e.g. Bloggs_Joe_AR50122)
- Upload your assignment to Moodle by a) using the Browse button (below) to select the appropriate document and b) selecting Upload this file.

You can resubmit as many times as you wish prior to the submission deadline - so don't panic if you upload the wrong document. You can review what you've submitted by returning to this page and clicking on your file, which will appear below this text.
Please remember that there are **penalties for late submissions**.

Figure 2 – assignment activity description at a submission point

These standard approaches often include:

- a **consistency in structure and format of assignment submission points** across all units on a programme of study – users can easily recognise and find submission points in the Moodle unit and navigate the information provided within them
- clarity of **expectations for file formats, sizes and naming conventions** – so preventing uploads of unsuitable/unopenable files which require resubmission
- the **provision of support materials** linked to online submission processes and guidance on completing the assignment itself
- information for students with regard to **how and when feedback and grades will be communicated** – to cut down on student queries to tutors and administrators
- guidance on **deadlines, late submissions and assessment offences**

B How should I set deadlines?

Setting a deadline within an assignment activity prompts students to submit their work by this date. The deadline can be made as specific as the time of day the work must be submitted, so it might be helpful to consider usual working practices and choose a time which would best suit students participating on the unit. Clear communication to students about deadlines and late submission policies would be advisable.

Students will still be able to submit work after this deadline unless the option to 'prevent late submissions' is chosen. This sets a hard deadline and will not allow further upload of files. Whilst this stops subsequent late uploads of files, it will also prevent re-submission of files if

students need to re-upload work in amended formats or after feedback from tutors. It may be preferable to leave a soft deadline in place so that some administrative flexibility remains. All uploaded work will be time-stamped within Moodle and a backup of the assignment activity can be made directly after the submission deadline so that a record of submissions at that exact point in time exists (for those cases where there are concerns that files may have been altered at a later date.)

C How can I organise marking and feedback?

The assignment activity makes uploaded files available in a central point where tutors can open/download them and then add marks and feedback for each individual student. A variety of approaches to using Moodle for effective feedback and grading can be adopted:

- at a basic level: marking and feedback can be entirely paper-based beyond the online submission point - with assignments being printed out after submission and then returned to students with mark sheet and comments attached
- provision of marks and simple feedback comments can be made by tutors directly into the assignment activity submission point so that students can easily access this information online in the Moodle Gradebook
- a completed digital marksheet or feedback proforma (Word file) can also be easily uploaded as a response file for each student
- submitted work can be downloaded, then annotated with feedback and returned to each student by uploading this as a response file to Moodle

During the marking process, switching off the Gradebook and hiding the assignment submission point will prevent students from viewing their grades. This allows multiple tutors to assess work over a period of time without grades and feedback being communicated to students. At the end of the marking and moderation period, these can be switched back on and students alerted to the available grades via e-mail or a post to the unit's news forum. It maybe appropriate at this point to make students aware that any marks provided are provisional grades until agreed by exam boards.

Many units now organise students on Moodle by tutor group which, although requiring initial administrative input, is often considered a worthwhile investment of time. Grouping students streamlines and clarifies the marking process for tutors, particularly for external tutors working with large cohorts.

Currently, the Moodle Gradebook does not feed assessment data directly back to SAMIS, so grades for work that has been submitted online still need to be communicated by tutors to administrative staff for them to be entered manually to the SAMIS database. This can be streamlined somewhat by the export of marks into an Excel file from the Moodle Gradebook.

D Can the assignment submission point be designed to ensure quality enhancement and to prevent assessment offences?

Whether you are checking for plagiarism in whole cohorts, from random samples or in work that has been raised as a concern by markers, the current process involves the download of assignments for manual submission to Turnitin software for scrutiny. The e-Learning team is currently investigating the technical and procedural implications of a potential integration of the Turnitin system with Moodle that would allow online checks by both unit convenors and students.

To highlight the importance of the academic authenticity of work, many units and departments are including a standard declaration on plagiarism at the online submission point; either as an additional support document, as part of an assignment coversheet or

template, or within the assignment activity description at the online submission point (see figure 3).

Module 1 Open Book Exam
Important: Before undertaking your Open Book Exam, please read the information provided in the Open Book Exam guidance notes, where you can find instructions, a timetable and guidance on answering the exam questions.
<u>Declaration:</u> By submitting this work I certify that I have read and understood the Statement on Cheating and Plagiarism (hosted on the ICM Programme Area) and that all material in this examination answer script is my own work, except where I have indicated otherwise with appropriate references.

Figure 3 – declaration on cheating and plagiarism at a submission point

It is possible to keep hidden versions of either previous assignment submission points or units on Moodle as a means of creating an archive of submitted work which remain available for comparison and future reference. External examiners can be given a guest login to your Moodle units which will allow them easy access to submitted assignments and corresponding grades and feedback.

E What support will be needed?

Guidance materials for students such as online guides and video training can be provided at submission points or elsewhere in a unit or programme of study. The opportunity to practice submitting assignment in the correct format and fashion as part of an online induction process can be valuable. This will highlight any difficulties students may have with conventions for file names and types, and allows students who do not consider themselves particularly computer-literate to gain confidence in the online submission process.

Support and training for staff in using the assignment activity (whether tutors or administrators) can be a key element in its effective introduction. Where departmental e-Learning Officers are on hand there are likely to be department-specific support materials available in the form of information on standard practices, how-to guides and exemplar assignment activities on Moodle. Staff can also benefit from access to support materials and Moodle workshops offered by the University of Bath e-Learning team:

- Assignment activity Moodle FAQs are available here: <http://go.bath.ac.uk/bxs6>
- How to: set up an assignment activity in Moodle: <http://go.bath.ac.uk/ogje>
- How to: grade an assignment and give feedback in Moodle: <http://go.bath.ac.uk/3vzb>
- Support available from the Moodle community:
 - Documentation on the assignment activity module: <http://go.bath.ac.uk/lmoc>
 - FAQs about the assignment activity: <http://go.bath.ac.uk/mozi>
 - Users forum with answers to questions about the assignment activity: <http://go.bath.ac.uk/dr77>
- A variety of workshops and seminars are provided the e-Learning Team including: Introduction to Moodle, Further Moodle, and Using Moodle for e-Assessment. For more information see the Learning and Teaching Enhancement Office web pages at: <http://www.bath.ac.uk/learningandteaching/>.

Moving forwards...

To further inform and support your development of online submission of work, these final pages provide case studies of assignment activity use in a variety of contexts at the University of Bath. Reflecting on these case studies with the following questions in mind should help you clarify your approach to using the assignment activity and better plan its introduction to your learning and teaching context:

- **How could standardising our approach to online submission on a unit of study benefit users?**
- **What information can we provide for students at the online submission point: to ensure that processes and expectations are clearly understood and to enable students to successfully complete assignments?**
- **Are there points within the online submission process where administrative or other responsibilities can be distributed amongst staff?**
- **How can I make the marking and feedback process as straightforward as possible for tutors?**
- **What support might students, tutors and support staff require in using the Moodle assignment activity?**
- **How can I ensure that academic regulations and quality enhancement procedures are complied with?**

Online Submission of Assignments: Undergraduate unit in Programming and Discrete Mathematics (Departments of Mathematical Sciences & Computer Science)

Approximately 260 Year One undergraduate students on this core Mathematics module are taught generic programming skills and discrete mathematics connected to computation. Often, the algebraic nature of mathematical work has required handwritten coursework to be submitted for assessment due to complexities in digitally representing functions quickly and easily. However, the Computer Science department finds the assignment activity in Moodle particularly useful for the submission of computer programs (code) written by students on this unit.

When dealing with such large student numbers in each cohort, the assignment activity has allowed for a simple central point of submission within the department. Staff no longer have to process the physical submission of a huge number of CDs or e-mailed code at each assignment point. Aside from this immediate administrative impact, tutors have also benefitted from the easy access to units via the internet when working from home. The move to Moodle has been well-received by students who increasingly expect to be able to submit assignments online.

For students to submit their work online, an advanced uploading of files assignment activity has been added to the unit. Students are required to submit a zip file (a compressed version of the original file) of their work containing the code they have written. The use of a zip file has been necessary to prevent difficulties sometimes encountered when downloading files of code that have been submitted to the web-based Moodle. For ease of identification, students have been asked to use their username within the zip file name. To

prevent students adding a new version of the file after the submission deadline, tutors have set the assignment activity to prevent late submissions of work.

With such a large number of submissions at one point, there needed to be a means for markers to easily identify students they have responsibility for when marking. To allow for this, the Department invested the time of a postgraduate student at the outset of the course to create groups of students within the Moodle unit. Along with this, to further streamline the marking process, staff now use the Firefox Add On 'DownThemAll' as a means to speed up the concurrent download of a large number zip files.

Whilst the initial set up of the assignment activities (and corresponding groups of students) have required some effort on the part of the tutors, the benefits have convinced them to extend online submission of assignments into Year Two of this programme. Increasingly creative uses of the assignment tool are being explored which include its use in combination with the Moodle Quiz activity; creating an online submission point that is conditional on a student giving correct answers to prove that their code is working effectively before the upload of assignments is enabled.

Formative feedback for undergraduate Coach Education students (Department of Education)

Cultural Economy of Sport is a Year Two undergraduate core module with a cohort of 64 students from the BA in Coach Education & Sports Development. The unit is based around a weekly lecture which explores contemporary sport culture and its relationship with various aspects of modern life. The convenor for this unit and a doctoral student in the Department of Education (with the assistance of the Department's e-Learning Officer) blended the use of the Moodle assignment activity with other online and face-to-face learning activities with the aim of encouraging student engagement with the course materials.

The assignment activity module in Moodle was used as an online submission point for a weekly upload of a 300-word position based on the topics covered by the lectures and virtual seminars that week. Students were expected to read extensively around the subject, discuss ideas in an online forum and express their personal opinions within the submitted position. The intention was, in this instance, to remove the necessity for academic rigour in writing (no referencing was required) in order to allow students to reflect, apply and focus their thought processes on the contextualisation of ideas and opinions.

Weekly feedback on the written positions submitted by students was given by the doctoral student and the unit convenor to the whole cohort via posts to the unit's News forum on Moodle and in lectures. It was hoped that a weekly submission of a short written piece along with regular provision of feedback would help students better engage with the lecture topics and encourage them to participate more fully in the online seminar aspect of the unit.

In total, eight submissions were graded for each individual student. The five highest of these marks would feed into the summative assessment process, with 25% of the module's final grade drawn from this assignment activity and 75% from a final assessed essay. Although only five of the submitted pieces would bear summative scores, many students completed all eight of the written positions with the specific intention of using the group feedback to continually improve their assessed marks.

The assignment activity in this context was run by a doctoral student working in conjunction with the unit convenor. This additional input was essential since the use of the Moodle assignment activity in this more creative context could be time-consuming and needed support from someone with both technical competence in using Moodle and with subject expertise (such as doctoral students or teaching fellows). Students' difficulties in keeping to

the 300-word limit for their written positions added to the time involved in grading and providing feedback, and have highlighted the necessity for very clear guidelines on word limits for subsequent cohorts.

Despite the fact that the weekly online submission of work does not appear to have encouraged increased participation in the virtual seminars as was initially hoped, this creative approach to submitting work online has been popular with students. It provided a focal point for discussion within lectures, has had very positive feedback in the Online Unit Evaluation and has certainly impacted on summative scores. The average grades for submitted positions were 72% for each student, whilst the essay marks were 55% - giving an average grade of 60% per student at the module's end.

It is hoped that provision of formative feedback through the assignment activity will now be introduced to a Year Three unit on Sport & Culture in the Global Marketplace. Its format will be restructured to require the submission of five or six 750-word positions to allow for a greater depth of discussion, and its focus will be extended to include improvements in the academic rigour of student submissions with feedback that is increasingly focused on academic writing skills.

Online submission of assignments in Pharmacy undergraduate and postgraduate units (Department of Pharmacy and Pharmacology)

The undergraduate MPharm programme is a four-year course with large cohorts of 120-140 students each year. The driving factor for the adoption of the assignment activity in this context initially came from the needs of placement students on overseas exchanges in their fourth year of study. Undergraduate units within the MPharm are increasingly adopting Moodle as a means to submit work online and deliver course content. Currently approximately 20% of units employ Moodle in this way, with a gradual growth in its use which is thought to be due to an increase in staff adoption of the tool.

At postgraduate level, the assignment activity is regularly used in the Advanced Programmes in Pharmaceutical Practice and Therapeutics. Moodle is the main means of delivering practice-based professional study to approximately 200 students who study on the programme in cohorts of 25 students .

Within these programmes, the assignment activity is used in a variety of ways to collect student work online. Differing approaches within units have led to the development of a variety of group and individual assignments: from weekly summative uploads within Year 3 research methods studies to short reflective commentaries in first year study skills units, and from evidencing learning in groupwork through to individual end-of-unit assignments in final year studies.

In several units, these individual final assignments are now uploaded within Moodle in order to provide a straightforward submission point for students. The assessment process at this point then reverts to a paper-based system where assignments are printed out for marking. At this point, departmental administrators also download assignments to submit them to Turnitin for plagiarism checks. With four tutors assessing approximately 25-50 online submissions each from the undergraduate units a marking template has been introduced to ensure consistency of approach to grading and feedback. This is currently also a paper-based system, but would ideally be moved online in the future. Feedback is provided to students after the Board of Examiners meeting, and assignments are stored for archive purposes.

Whilst there is not a formal departmental approach as such, a Courseware Author is available for Moodle maintenance and uploads and, within this remit, keeps Moodle units to

a standard template for ease of use by staff and students alike. Within many of the units, provision of guidance for students can be found at the assignment upload points on Moodle in the form of mark scheme documentation and standard plagiarism declarations. Information about summative marks attached to assignments, word limits, and expected file formats and naming conventions are often highlighted within assignment descriptions, although there is not a standard system across units.

Within the postgraduate Advanced Programmes in Pharmaceutical Practice and Therapeutics, extensive support is given to students in using Moodle for online study in the form of an online induction unit which includes a guide to the submission of assignments. Each unit has a dedicated Assessment Zone which clearly delineates the assignment activity points where work should be submitted. Very specific guidance is given on the naming of assignments in order to prevent difficulties with file corruption and to simplify the administrative tasks involved in downloading files.

One particular benefit to using the assignment activity for online submission of work has been the opportunity to archive submitted work from previous cohorts within Moodle units. By 'hiding' old assignment activities within units that are still current, tutors are able to refer back to previous work and are able to easily make comparisons of coursework between cohorts.

It is envisaged by the Department that the growth in online submission of assignments will continue, as students and staff alike become more familiar with the processes involved and the affordances the tool offers.

Online Submission of Assignments in the MSc in International Construction Management (Faculty of Engineering & Design)

The MSc in International Construction Management (ICM) is a postgraduate programme accredited by the Royal Institution of Chartered Surveyors which provides flexible distance learning to over 350 professionals in the construction industry. This programme offers the majority of its study online, with an additional opportunity to attend residentials at the University of Bath or other international centres.

With the needs of distance learning students in mind, the programme has been redeveloped over last two and a half years to a blended learning approach with learning activities integrated online over the whole course. The assignment activity in Moodle provides a more reliable and convenient method for offsite students (many of whom are international) to submit work than the previous methods of e-mailing or posting hard copies. Adoption of the assignment activity within the programme has relieved the administrative burden these methods often created and has made the enforcement of submission deadlines more straightforward.

Within the units of study all submission and marking is undertaken online, working to rigorous deadlines. The assignment activity is used for a variety of assessed pieces of work including open book exams, reflections on professional practice for e-portfolios, critical accounts linking learning to practice, and final assignment submissions.

Due to the self-directed nature of distance learning, the provision of information around submission points on the ICM Moodle units is detailed and highly structured. The assignment activity description is generally extensive and includes links back to guidance notes, a declaration on plagiarism, and detailed instructions on uploading appropriately named files in the correct format.

A comprehensive set of administrative procedures have been established within the ICM units. Once the submission deadline has passed, unit administrators check that a valid file has been uploaded by each student and acknowledge its receipt via the feedback function in the grading screen for that assignment. After this, the assignment submission point and Gradebook are hidden from view so that external tutors may mark the work without students being prematurely notified of their grades and feedback. The advanced uploading of files assignment activity is used in the ICM units to easily allow tutors to upload response files. There is no standard method for provision of feedback, so tutors may provide brief comments in the feedback box on Moodle or could extend feedback to an annotated response file. The grading within Moodle has been set to a customised scale for the ICM units in order to provide students with a provisional indication of their grades. When marking is complete, tutors e-mail marks to the unit administrator for manual input into SAMIS, the assignment submission point is made visible and students are e-mailed to alert them that their grades are ready.

Integral to the successful adoption of the assignment activity in the ICM units has been the provision of extensive support for both students and external tutors. The induction process for learners (both online and residential) includes support and guidance materials for use of the assignment activity and provides an opportunity for students to practice uploading work to Moodle. Materials have been made available online for tutors on the programme and one-to-one support is offered by the Department's e-Learning Officer.

One of the Department's current e-learning projects is to roll out this ICM blended learning model and online submission of assignments to two other MSc distance learning programmes: Electrical Power Systems and Integrated Environmental Management. This is particularly timely for the EPS course which faces an imminent shift to an external tutor system. Both these programmes already have some limited online provision of materials and activities, but they present particular challenges in adopting the assignment activity for upload of student work. Neither of these programmes have students in specific cohorts so a creative approach to submission deadlines will need to be explored. Additionally, provision of suitable software will need to be investigated for EPS units which involve the upload of assignments with a substantial element of mathematical formulae.

Having explored the adoption of the Moodle assignment activity at the University of Bath and considered the opportunities and implications this brings, how might it be used to benefit your particular learning and teaching context? What will be your next steps in introducing online submission of work? The ideas that have been highlighted for consideration in this report should provide an effective basis for any discussions about implementation of the Moodle assignment activity, whether you are approaching online submission of work from a departmental, unit or individual tutor's approach. A simple and practical starting point has been offered, and further resources and available support have been signposted. However, if you have any questions about the online submission of work or if you would like support and advice on using the assignment activity the e-Learning Team would be happy to help.

For more information, contact the e-Learning Team at e-learning@bath.ac.uk