

# making the case

## Using e-workbooks with health care students in Higher Education

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### **Theme(s)**

**Teaching/Professional practice:** Programme/Course Development, Managing e-Assessment

**Organisation:** Student Satisfaction, Retention

### **The background context**

As an alternative to the traditional printed workbook, online electronic workbooks or “e-workbooks” have recently been introduced at Middlesex University’s School of Health and Social Science. The e-workbooks integrate exciting and varied multimedia learning content into an individualised online workspace where students read, listen to, watch, and interact with learning materials and save their responses to workbook activities online.

Used in conjunction with face to face lectures, the e-workbook approach has been adopted for both formative and summative assessment purposes. In addition to retaining some of the features of printed workbooks, e-workbooks can prove to be an efficient method of monitoring progress and engagement with workbook activities and providing more frequent and timely formative feedback.

E-workbooks, just as printed workbooks, are designed to guide independent learning away from the classroom. Students have the opportunity to work at their own pace at any time, from anywhere with internet access.

This case study presents initial findings of a project that is investigating the implementation of e-workbooks at Middlesex University and is attempting to explore the influence of e-workbooks on monitoring student progress, delivering formative feedback, and guiding students’ independent learning. By analysing views and experiences expressed by students and higher education lecturers on the recent deployment of e-workbooks at Middlesex University, this study aims to further explore and enhance the role played by e-workbooks in teaching and learning practice.

### **Why PebblePad?**

The e-workbook approach of providing students with an individualised online workspace to replace the traditional printed paper based workbook was made possible by PebblePad.

PebblePad allows online monitoring of e-workbooks by academics and practice supervisors whenever it is necessary, without stopping or hindering students from continuing to work on their workbooks. This flexibility allows tutors to engage with student work at any time from any place. Work can be marked from home or on the go, and there is no need to carry heavy folders around or organise meetings to see students just to see their workbooks. Tracking students’ progress helps to identify struggling learners in time to provide support (learning or subject related) and to provide more personal and timely formative feedback.

Learners can also access and update their workbook from any place, at any time. They have direct access to resources and their feedback is delivered instantly.

The webfolio function in PebblePad allows lecturers to create workbook templates containing pages embedded with videos, audio, and other resource links, as well as areas for students to record responses to questions and to keep learning journals. The webfolio template functions as a reusable learning object (RLO). While time and effort may initially be required to create the e-workbook template, subsequent use with future student cohorts makes the initial effort very worthwhile. The electronic templates can be easily made available to unlimited numbers of students.

Pebblepad can be integrated with the University's Virtual Learning Environment (VLE), which reduces the technical barriers to accessing the e-workbooks. Users do not need to remember extra usernames and passwords and, once logged onto the VLE, students can access their personal e-workbooks on the class gateway in just two clicks.

Reducing printing costs for both students and for the department is one of the positive outcomes of this approach. In modules with large numbers of students, this cost saving over time is quite substantial.

## The purpose

There were a variety of reasons for introducing e-workbooks in different modules:

- To find a more efficient way of monitoring student progress during the module run;
- To take advantage of the flexible nature - any time and any place - of online workbooks;
- To look at efficient ways of providing formative feedback in a timely manner that could lead to improving student learning;
- To reduce the marking burden by employing a gradual and consistent feedback approach over a longer period;
- To encourage students to regularly reflect on their progress;
- To find ways of increasing student engagement with online electronic journals and library resources;
- To find a way for students to retain access to learning materials after a module run and even after leaving the University (Currently students lose access to learning materials kept in the VLE once the module has finished. Continuing access after the module enables students to refer back to previous modules. e-Workbooks being housed in the students' personal space in contrast to an institutional space (the VLE) develops a sense of ownership and enables students to construct their knowledge and create links between acquired knowledge in different modules);
- To support the institutional drive for increasing e-assessment and e-feedback opportunities.

## The approach

Academics were introduced to the opportunities offered by e-workbooks through two hour e-workbook staff development sessions.

They collaborated with the educational development unit to:

- structure and create webfolio templates (e-workbooks) with interactive content and activities;
- set up gateways;
- conduct student induction sessions where the students copy the template into their personal PebblePad and publish to the course gateway to share their work with module leaders. These sessions also served to familiarise students with accessing their workbooks, filling them in, receiving feedback, and sharing them with practice supervisors (non-PebblePad users).

This case study considers e-workbooks used in several departments across the School of Health and Social Sciences, including Criminology and Sociology, Mental Health, Social Work and Interprofessional Learning, Midwifery, Child Health and Primary Care, Natural Sciences, Psychology, and Social Science. The following examples provide a flavour of the variety of ways in which e-workbooks have been implemented in different modules.

### CMH 2110 Diagnostic Skills Workbook

*Student cohort: approximately 50 second year complementary health students*

This e-workbook is used to guide independent learning. The workbook is embedded with images and multimedia files of various conditions such as heart and lung sounds, and video clips showing ideal gait and gait defects. The students complete exercises as they progress through the module. Their responses are discussed during lectures and feedback is given at a group level.

Previously the diagnostic skills workbook consisted of a series of pdf worksheets that were released to students through the VLE together with their weekly lectures. Students were expected to print out the worksheets to complete them. Some images and links to resources were provided via the VLE and some videos were shown in lectures. The worksheets and external resources were not directly linked.

### MWY 3440 Neuro-Behavioural Physiological Assessment of the Newborn

*Student cohort: 27 third year midwifery students*

- **Clinical Workbook**

This e-workbook contains instructions on carrying out and recording an assessment of a newborn baby. The e-workbook contains an example of a completed assessment form to guide students. The rest of the e-workbook consists of 70 assessment forms the students have to complete as part of their training. Students are required to submit the assessment forms as evidence of competency to fulfil the summative component of this module. These forms guide students to carry out and record cases they encounter in the practice situations. Each assessment form has a section for the student to record their reflections and also receive formative feedback comments from the module leader.

Previously students compiled and submitted a paper portfolio composed of the patient assessment sheets and their reflections of each case. Formative guidance on assessment forms was provided through face to face meetings with the module leader.

- **Session Worksheets**

E-workbooks are used to provide end of session worksheets for completion. The e-workbook contains a reading list with direct access to library resources and full text of electronic journal articles. The workbooks are formatively marked and feedback is given through the e-workbook.

The previous approach was downloadable worksheets from VLE.

### NIP 1002 Foundations for Nursing Practice

*Student cohort: 450 1st year BSc Nursing students*

The e-workbook contains post-session worksheets drawing on material covered in lectures and lab sessions. As this is a very large cohort, several module group leaders monitor and provide feedback on completed assessments as students progress through the module. This allows the group leaders to identify students who are struggling and offer them appropriate support.

Previously this was done using paper workbooks and worksheets. Group leaders had no transparent way of identifying struggling students or offering formative feedback in a timely fashion.

### PGDip Mental Health Practice

*Student cohort: 50 trainee mental health students*

The practice portfolio consists of guidance material, worksheets, learning and supervision journals, and attendance records. It is completed by the student but the completion of the work is guided and overseen by the practice supervisor who carries the responsibility for checking and signing off the completed document.

Previously this was achieved using paper based portfolios. Students had to carry around large and heavy folders and arrange a time to meet with practice supervisors to discuss and sign the necessary documents. University based module leaders could not easily identify and help struggling students.

### **The result**

Up to 20 different e-workbooks are currently being used at Middlesex University by over 650 students. In the current academic year over 1700 copies of individual workbooks have been made by students and shared with educators. These e-workbooks have served as exemplars to other academics, with increasing numbers showing an interest in adopting a similar approach in their teaching practice.

### **The impact**

Staff and students involved in the project were surveyed. The following is a summary of initial findings.

#### Feedback from tutors

- Lecturers appreciate that they have instant access to student work, can monitor progress, and can provide instant feedback.
- The e-workbooks have increased the workload of some tutors as they spend more time monitoring progress and providing feedback.
- Monitoring students' learning has revealed a need for addressing the lack of independent study skills in many students.
- The e-workbooks have enabled the identification of students struggling academically at an early stage. This may allow interventional support to reach students in time to help them meet the required academic standards, and thus may improve course retention rates.

#### Feedback from students

- The e-workbooks increased independent study. Over 80%, more than 90 respondents, agreed that e-workbooks served to guide their learning.

*"Encourages self-learning and lets you access work wherever you are. Allows you to learn at your own pace"*

- The e-workbooks helped in their transition to technology-enhanced learning and allowed them to access learning content at any time and from anywhere with internet access.

*"... I am an older student and previously a technophobe, however I have made a big effort to engage with e-learning and keep up. I am impressed with myself. Advantage is that I can work at my own pace, maybe 5 hours late at night or 20 minutes in the day."*

- There was overall consensus among participants that the e-workbooks allowed regular reflection on progress and a means of identifying gaps in learning.
- There was a growing awareness of the benefits of having lecturers monitor work and provide feedback online, with the feedback helping them to focus on the topics.
- Where workbooks provided links to library resources and electronic journal articles, over 80% of respondents agreed that these links encouraged engagement with library resources and research findings. They liked the interactive resource links embedded in the workbook and the structure the workbooks provided to guide their learning.

**“ The advantages I see in using the e-workbooks are: the pre-session work helps me prepare for the lecture I will be having, making me more alert in class having an insight into what will be taught; the post-session work helps my continuous reading; and been able to access online materials through my library and other links is a great benefit. ”**

### **Lessons learnt**

#### Feedback from tutors

- Some staff need to develop stronger IT skills and gain more experience working with PebblePad.
- Extra time might need to be negotiated to manage the extra workload in creating e-workbooks, marking online, and providing regular individual feedback.

*"Staff workload needs to be considered particularly with monitoring. Very resource dependent."*

- Some workbooks need to be redesigned as the amount of work expected from students is too much and students feel overburdened.

*"Make sure that they are not given too much to do in the workbook, therefore as a tutor I need to think very carefully about what is included in the workbook and what the students need to get out of this."*

- Some of the resources need to be updated for future cohorts, possibly including more diagrams and multimedia material.
- The level of student responses and the time needed to read and comment on work has been underestimated. Introducing word count limits for students might be considered in future.
- Lecturers have identified that some students are copying and pasting large chunks of text from books and other electronic resources directly into their e-workbooks without actually thinking about and digesting the learning content. Additional student guidance on paraphrasing and plagiarism may be required. To deter students from doing this Turnitin integration with PebblePad is being considered.

#### Feedback from students

- Some students do not like using computers and prefer paper workbooks. Although the workbooks are accessible from anywhere with an internet connection, some students did not regard them as portable as a paper notebook that they could just take around with them. They also pointed out that they could not add diagrams or format their answers.

*“To be honest, I do not agree with using e-workbooks. I think doing work in a paper based workbook would make things a lot easier for many people in my class including myself. I am lucky that I have previous experience working with computers but others do not and are still finding it difficult to complete the work online.”*

- There were concerns around replacing tutor time with online resources.

*“It should NOT replace tutor contact time. As useful a tool it is as a supplement to the classroom, it should not be used in place of this. The idea of attending a traditional university over for example the Open University, is that students have space and a platform to share ideas and experiences, to discuss, learn and debate. This cannot be undertaken on [the VLE] as effectively.”*

- There were some technical problems with a number of students reporting losing work due to PebblePad timing out, and several suggested the need for a spell checker.
- Need for more interactive elements.

“ *I love diagrams in anatomy books. It would be good to have interactive diagrams, perhaps of fetal circulation or breakdown of red blood cells to form bilirubin.* ”

- Students generally were wary of the volume of work required from them. This issue needs to be considered carefully in future and there needs to be an attempt to streamline the questions more and reduce the amount of work required from students each week as the unreasonable workload can be very demotivating for the learners.

*“All are helpful to a degree but also A LOT of work and A LOT of pressure which just add to the work load.”*

- Some strategic learners did not regard completing the workbooks important where the workbooks were not assessed.
- Need for more regular/instant feedback and a more transparent link with the material covered in class was pointed out. At the moment, model answers are not provided, although where workbooks are used by smaller cohorts and for summative assessments individual feedback is given regularly. For larger cohorts using workbooks for formative learning, lecturers are not always able to provide continuous individual feedback on each workbook. Students expressed a need for in class opportunities to discuss the more problematic aspects of the subjects covered in e-workbooks and to link it to the work they do when in class.

#### **In brief – making the case for PebblePad**

- PebblePad allowed students to engage with the e-workbook activities while the technology itself could stay in the background.
- Tutors were able to monitor student progress at any time, from any place and allocate necessary support.
- The timely feedback motivated students to continue to engage with their subject.
- Unlike paper based workbooks non-engagement with e-workbooks is easily detected allowing this issue to be tackled.

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