# Throwing a pebble into the pond: E-portfolios and student engagement

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This paper reports on initial findings and implications of the use of e-portfolios for students' planning, reflecting and recording elements of their learning; issues surrounding student engagement are also discussed. A pilot study of the *PebblePad* e-portfolio software was conducted with a cross section of students: eight first year and six final year dissertation students. First year students were using the e-portfolio for their Personal Development Planning. Interviews were conducted with first year students mid semester and also at the end of their first year. Interviews were also conducted with final year students upon submission of their dissertations. Results revealed a higher level of engagement from final year than from first year students. Overall, final year students appreciated the usefulness of *PebblePad* and engaged well with the e-portfolio in the early stages of the dissertation process; however, engagement after the initial stages of the dissertation declined with students reverting to regular e-mail for contact in addition to their regular face-to-face meetings.

Keywords: e-portfolios, personal development planning, student engagement, dissertation support

## Introduction

The requirement for all UK higher education institutions to implement Personal Development Planning (PDP) has generated a great deal of interest in the development of e-portfolios. These developments have created a large interest, but not necessarily a consensus, with the nature and scope of strategies for implementation left to individual institutions. The University of Gloucestershire was therefore not alone in considering the use of an e-portfolio for its PDP support but its choice of e-portfolio was also driven and informed by wider objectives to provide a means of encouraging reflective practice both in students and staff in the University. This paper reports on the initial findings and implications of the use of an e-portfolio for students' planning, reflecting and recording elements of their learning; issues surrounding student engagement are also discussed.

## Choice of *PebblePad*

The two main criteria that were used in determining the choice of e-portfolio system to be used at the University of Gloucestershire, were that: 1) there should be a clear mechanism which prompted the user to add a reflection on any item submitted to the portfolio; 2) it should be appropriate for use by undergraduate students, postgraduate research students and staff. It was felt that the *PebblePad* system offered the flexibility required by a range of users, and that it had an explicit link to the recording of reflections for any material added to the portfolio.

## Pilot study

The pilot study on the use of *PebblePad* was focused on the Department of Natural and Social Sciences, specifically Psychology. Eight first year students and six final year students took part in the pilot study; six second year students acted as interviewers for the first year sample.

### Procedure

During the first week of semester 1, training sessions were conducted which involved a small discussion about the software and the links between the usefulness of the software and the curriculum. Instruction involved student engagement with the package and interaction between themselves and their peers, the instructor and their personal tutor/dissertation supervisor. By the end of the sessions, all students were

able to create records of achievements, set up contacts, share information with contacts, and record both personal and shared reflections.

After the initial training session, students were asked to engage with the software. Specifically, first year students were asked to record and submit their PDP portfolio via *PebblePad*. As this module was not taught and assessed until semester 2, the students were asked to engage with *PebblePad* to submit their work for a module involving monitoring and assessing their progress during semester 1. This module was related to the PDP module and also included information relevant to the semester 2 PDP module. In addition, the module was assessed with a portfolio of work built over the semester.

First year students were interviewed by second year students (to ensure that students felt comfortable in giving honest responses) to assess how students were settling into the University, any problems they might be having, their perceptions of the approachability of their personal tutor, to confirm that students had engaged with the *PebblePad* software training and that they were still registered on a programme at the University; this process was repeated at the end of the academic year. First year students' engagement with *PebblePad* was thus monitored during both semester 1 and semester 2.

Final year students' engagement began immediately by planning a dissertation timetable and also planning dissertation meetings. These documents became the basis for initial discussions and reflections on the dissertation process. The engagement of third year students with *PebblePad* was monitored across both semesters. In addition, third year students were interviewed upon submission of their dissertations. As there is a more equivalent, honest and open professional relationship between dissertation supervisors and their supervisees, the dissertation supervisor conducted the exit interviews for the final year students.

## Results: Student engagement

### Level I

*Semester 1 & 2 engagement with PebblePad*
Three students actively engaged with *PebblePad* during semester 1. Of these students, most were asking for advice on planning assessments and asking for feedback. At the end of semester 1, however, only two students submitted their portfolio via *PebblePad*. During semester 2 students failed to engage with *PebblePad* and students did not submit their PDP portfolio electronically.

*Semester 2 interviews*
Interviews with first year students at the end of semester 2 revealed a number of issues. First, three students (one that had submitted work via *PebblePad* at the end of Semester 1) had transferred programmes during the semester and thus were no longer engaged with the programme. One of the students had access difficulties with *PebblePad* from student accommodation. Overall, the remaining students were negative about the usefulness of *PebblePad* saying that they were very familiar with e-mail and Microsoft Word programmes and felt that these were flexible enough for their requirements. Students felt that they may be disadvantaged by submitting work via *PebblePad* and simply engaged with the normal submission process for assignments.

### Dissertation students

*Engagement with PebblePad*
All six dissertation students attended the *PebblePad* training session and used *PebblePad* to plan their dissertation timetables. All students shared these timetables with their supervisor and this was followed by two-way reflections on the timetables; a final, personalized timetable was agreed between individual students and their supervisor and supervisory meetings were planned. Students engaged well, and all planned initial meetings and advised their supervisor of an agenda prior to the meeting. After the meetings, students reflected on the discussion and checked the accuracy of comments and sought confirmation about any details that were either unclear to them or had been forgotten.

This planning and reflecting on meeting continued well while studies were being planned. Students linked work, made logs of issues and seemed very much at ease and comfortable using the e-portfolio. At least two students made explicit positive comments at this point about the usefulness of *PebblePad*. It

was, however, observed that when the planning phase of the work was over, students appeared to revert to general e-mail. In fact for the rest of the dissertation process, students failed to utilize the opportunity to plan and to reflect on meetings or to engage with any other aspects of *PebblePad*.

*Semester 2 exit interviews*
The exit interviews with final year students revealed some interesting points. All students agreed that they had used with *PebblePad* for planning and reflecting upon early dissertation meetings. Students commented that they found the e-portfolio useful to focus discussions. Students did, however, feel that e-mail gave them more direct links to their supervisor. Students also felt that wider use of *PebblePad* may encourage usage but as many other links were maintained via e-mail then they eventually resorted to the programme with which they were most familiar. Despite their lack of engagement with *PebblePad* at the end of the dissertation process, students felt that the system allowed them to set objectives and formulate plans.

## Discussion

Results revealed a higher level of engagement from final year than from first year students. Overall, final year students appreciated the usefulness of PebblePad and engaged well in the early stages of the dissertation process. All students used the e-portfolio to plan a dissertation timetable, to reflect on meetings, and found it useful as a record of these processes. However, engagement after the initial stages of the dissertation declined with students reverting to regular e-mail for contact in addition to their regular face-to-face meetings.

Interviews with both first year and final year students allowed a deeper insight into why there were problems with engagement. Pearson & Hayward (2004), in a study of General Practitioner registrars use of e-portfolios, found that engagement with e-portfolios was vulnerable to external pressures including lack of time; this appeared to be an issue for both first year and final year students. For first year students, the mere transition to university is a stressful time (Willis, Stroebe & Hewstone, 2003) before consideration of the academic demands required of students. We also know that when students are under pressure they have depleted cognitive resources. These points also appear to be relevant for final year students who appeared to engage well with the programme until around week 7 of semester 1 which was the time when data collection began and assignments for other modules were due. When cognitive resources are depleted, there is a tendency to revert to automatic rather than controlled processes (Logan, 1980). In relation to *PebblePad*, it appears that students did this by reverting to e-mail and regular assignment submission, freeing valuable cognitive and physical resources to meet the demands of situations they found themselves in.

Pearson & Hayward (2004) also found that careful introduction and support from trainers was essential to ensure usage. For our first year students, initial induction to *PebblePad* may have been better conducted in semester 2 and then incorporated into the PDP module weekly sessions. Moving training closer to the relevant learning and assignment point in this way may have facilitated more engagement. This strengthening of the link between training and learning and assessment may also have facilitated deep, rather than surface, learning and routinized its use allowing more ease of usage (Ramsden, 1992). The use of learning portfolios also requires that the training and justification for use is clearly articulated and emphasises this as a process rather than a specific assessment point. This requires challenging students to overcome strategic, assessment-focused, approaches to learning. O'Keefe & Zehnder (2004) observe that the use of media should be 'institutionalized to the point that they are taken for granted' (p.731). Initial engagement for final year students was not so much of a problem but continued usage was. Although the exit interviews for final year students pointed to them utilizing contact through the most convenient medium, again more support may have alleviated issues of non-engagement.

E-portfolios can help students become critical thinkers (Lorenzo & Ittelson, 2005) as there is substantial scope for a two-way process between students and tutors/lecturers to reflect upon learning, assessments and feedback. Indeed, one of the academic transitions to university involves raising levels of critical thinking. In addition, reflecting learning can also enhance critical thinking skills and has been an important aspect of learning in both medicine (Cook, 2004) and teacher training (Lorenzo & Ittelson, 2005). For students at all levels there are advantages for incorporating e-portfolios into the academic curriculum.

None of our sample submitted a PDP portfolio via *PebblePad* but all students did submit these portfolios in paper formats. Many of these documents were missing items that had been misplaced or were damaged by having been stored inappropriately. Electronic storage of these items would have made collecting the necessary elements easier and would have made subsequent electronic submission a very simple task.

## Conclusion

This pilot study has indicated that embedding the use of e-portfolios into the curriculum is important to its successful use. Lorenzo & Ittelson (2005) suggest that e-portfolios are excellent facilities for documenting skill sets and thus ideal tools for PDP recording. Training should therefore focus more heavily on the specific aspects of both the process and making closer links to the assessment. For example, the initial experiences of our dissertation students illustrated how successful use could be as part of a clear developmental process. Our experiences therefore indicate that where students view the use of e-portfolios as part of an ongoing process, rather than leading to a fixed assessment point, this will result in a 'routinized process' and so embedded use.

## References

Cook, J, (2004) Electronic portfolios for learning and assessment, *Interact,* 29, 3–4.

Higher Education Academy (2006) *The UK Professional Standards Framework for teaching and supporting learning in higher education.* http://www.heacademy.ac.uk/professionalstandards.htm.

Logan, G. D. (1980). Attention and automaticity in Stroop and priming tasks: Theory and data. *Cognitive Psychology*, 12, 523–553.

Lorenzo, G and Ittelson, J (2005) An Overview of E-Portfolios**,** *Educause Learning Initiative*, 1(July), 1–27.

NCIHE (1997) Higher Education in the learning society. Report of the National Committee if Inquiry into Higher Education, London: HMSO.

O'Keefe, B. J., & Zehnder, S. (2004) Understanding media development: A framework and case study. *Allied Developmental Psychology*, 25, 729–740.

Pearson, D and Hayward, P (2004) Portfolio use in the general practice vocational training: A survey of GP registrars. *Medical Education* 38, 87–95.

QAA (2004) *Code of practice for the assurance of academic quality and standards in higher education, Section 1: Postgraduate research programmes*, Gloucester: QAA.

Ramsden, P. (1992) *Learning to Teach in Higher Education*. London: Routledge.

Willis, H, Stroebe, M & Hewstone, M (2003) Homesick blues, *Psychologist*, 16(10), 526–528.

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