



REAP Completion Report

Department of Childhood and Primary Studies

B.Ed (Hons) Primary

Project Sign-off

1. Project achievements

*Have all **project activities or deliverables** been completed? What, if any, work remains outstanding from your plans for this academic year?*

The project aims have been completed for this year. The project aimed to use technology to support the Personal Development Planning (PDP) process and to extend this tool across the B.Ed 1 curriculum. The project aimed:

- To create an on-line format of PDP to facilitate the management and assessment of the process
- To integrate PDP more coherently with the rest of the B.Ed Year 1 course
- To increase opportunities for peer and self assessment and support across the course

The first aim was achieved in the first year of the project with the selection of an e-portfolio tool called Pebblepad (Pebblepad can also be described a personal learning space); this year has focussed on integration of the Pebblepad tool across the first year experience, in particular in supporting self and peer assessment.

At the end of the project, do you feel you achieved the aims and objectives identified at the start? What is missing? What have you done that wasn't in your original plans?

The course team is satisfied that the key aims have been achieved. The task now becomes extending the integration of the approach across the B.Ed. course and in sustaining the work that was given impetus by the REAP project.

2. Impact on students

What has the impact of the project been on students? Have marks, attendance, retention, progression or other key indicators changed or improved (please give details)? Do students demonstrate differences in their satisfaction with the class or course? What evidence can you draw on (please give details)?

Quantitative data was gathered from students each year through a baseline and end-of-year questionnaire. This was illuminated by qualitative data from a focus group and e-portfolio entries (assets) that students voluntarily shared with staff. The REAP team also conducted a pyramid discussion with a sample of the students during the year.

The baseline questionnaire issued in September 2006 supported the findings from the 2005 student cohort, that is, that the students had no previous experience of using an e-portfolio and that small percentages of students had prior experience of PDP (22% in 2005-06 cohort; 14% in 2006-07 cohort). The students' rating of satisfaction with their past PDP experiences were not high and previous experience did not lead to high self-ratings for confidence in engaging with PDP at University. The B.Ed. course was engaged in a continuous process of developing its PDP that had taken it from a bolt-on model to a cross-Faculty module to an integrated paper-based Progress File that was principally contributed to in PDP classes. This project aimed to transform this model from paper-based to electronic and to embed PDP through the e-portfolio across the course experience.

The first project year allowed the project steering group to gain experience in using an e-portfolio with students. In the introduction to students in year 2, some technical issues were



initially addressed, such as students' access from home. However, technical issues persisted and impacted on some negative feedback from the students in the pyramid discussion. The steering group had intended that an externally hosted service would be migrated to a University of Strathclyde server and supported by its IT services for September 2006. This migration was delayed while technical issues were addressed before the University's services were willing to assume responsibility for supporting Pebblepad. A later migration date was delayed as a wider University debate was taking place about the variety of IT platforms in use. The e-portfolio has now migrated onto our server but the delay meant that there was uncertainty that led to hesitation in upgrading the version of the tool. Technical issues arising from using an older version, such as time out and spell checker inaccuracy (these have now been improved in the recent version), led to some student dissatisfaction that had a knock-on affect to the project.

While students in the first year of the project had a choice between a paper-based or electronic portfolio, this cohort of B.Ed 1 students only used Pebblepad. Tasks were identified or created across modules that would use Pebblepad to facilitate self or peer assessment tasks. For some modules, these tasks were mandatory but other modules set tasks that could be optionally completed in the e-portfolio. 96 students completed a questionnaire on their use of Pebblepad. Compared to the 2005-06 cohort, their use was more evenly spread between home and the University campus. This pattern of use is relevant to the learning of the students as the course has increasingly used shared group tasks; while staff believe this social constructivist approach benefits students' learning, it can be difficult for students to achieve with work-life balance and the location of a Campus on the outskirts of Glasgow. This data suggests that this tool assists the course in achieving this learning approach and students commented that the tool supported their learning where they are drawn from a wide geographical location.

70% of the students described their e-portfolio use as 'irregular' with 12% of students responding that they made independent entries in Pebblepad. This suggests that the embedded tasks in Year 1 help the students to get started in using the e-portfolio. Previous data collection on PDP in the course has shown that engaging first year undergraduates in PDP is difficult; this was supported by the responses of staff from a range of HEIs in the recent CRA-HEA conference in Glasgow (see dissemination section). The interaction between staff and students from previous cohorts using Pebblepad suggests that students increase their independent engagement and this would be a pertinent area to follow-up after the REAP project. The course initially organised sub-groups for students to share tasks; while the questionnaire data showed that these groupings persist, it also indicated that students' self-selected networks were emerging for the sharing of assets.

The student questionnaire reminded the students of embedded tasks in each module that had asked them to use Pebblepad. The students were asked to rate the perceived learning benefits (1 low – 5 high). Some students explained low rating for modules by saying that they were hardly asked to use the tool or they opted for a paper-based approach instead; however, some students were clear that they felt the tasks had lacked purpose and they could not identify any 'value-added' for them in using an e-portfolio versus paper, email or word processing. The three most highly rated modules for the perceived learning benefits in using Pebblepad were Educational Studies (it adopted a blended learning approach that included independent peer work on tasks), Skills for Effective Learning (a study skills module that embeds PDP and uses the portfolio for a variety of uses including action planning) and Environmental Studies (the students used Pebblepad to complete peer and self-evaluations of a field work project).



Table 1: Perceived benefits to learning ratings for Educational Studies.

Rating	Frequency (no. of students)	Valid %
1 low	10	10
2	6	6
3	17	18
4	36	38
5 high	27	28

16% students rated their perceived learning benefits from using Pebblepad for Teaching & Learning tasks low at 1 or 2; 18% rated the benefits in the middle band; and 66% of students rated the learning benefits highly at 4 or 5.

Table 2: Perceived benefits to learning ratings for Skills for Effective Learning.

Rating	Frequency (no. of students)	Valid %
1 low	18	19
2	13	14
3	22	23
4	26	27
5 high	16	17
No response	1	

33% students rated their perceived learning benefits from using Pebblepad for Teaching & Learning tasks low at 1 or 2; 23% rated the benefits in the middle band; and 44% of students rated the learning benefits highly at 4 or 5.

Table 3: Perceived benefits to learning ratings for Environmental Studies.

Rating	Frequency (no. of students)	Valid %
1 low	20	20
2	18	18
3	29	29
4	28	28
5 high	5	5

38% students rated their perceived learning benefits from using Pebblepad for Teaching & Learning tasks low at 1 or 2; 29% rated the benefits in the middle band; and 33% of students rated the learning benefits highly at 4 or 5.

The common features between the three most highly rated modules for perceived learning benefits to students were identified as :

Table 4: The common features of modules rated highly for perceived benefits to student learning.

module	Required peer collaboration/feedback	Received tutor feedback	Contributed to formal assessment
Ed Stud	√	√ P/pd	√ used as a step towards exam
SEL	For some tasks	√ written	√
Env Stud	√	√ written	√

(*Ed Stud* = Educational Studies; *SEL* = Skills for Effective Learning; *Env Stud* = Environmental Studies)

The students also explained their higher ratings of 4 or 5. The most frequent responses were that forty-two students had felt that these modules had asked them to use an e-portfolio in ways that enhanced their communication with others while 6 students referred to the benefits to communication in grouped work across a geographical spread of students working locations.

The pyramid discussion and student focus group identified some technical problems and possible over-integration of the tool during the year; on the other hand. 72% of the



questionnaire respondents had felt that the ability to share assets with peers and tutors through Pebblepad had been beneficial to their learning. Many of the related comments were about the benefits of knowledge transfer but other comments suggested that students receive reassurance and emotional support through working collaboratively through Pebblepad. As self and peer assessment was a key aim of the project, the data suggests that the students did engage with these processes and could identify learning benefits where these tasks used the technology in a meaningful way that enhanced the learning experience.

A further aim of the project was the integration of PDP through the e-portfolio across first year. The engagement of modules in using Pebblepad suggests this took place with varying degrees of success. In addition, there was an aspiration that the tool would support students in beginning to integrate knowledge in a modular course. 35% of the students felt that Pebblepad had helped them to make cross-course links. The focus group illuminated the extent to which first year students had been able to synthesise their course learning. The final focus group in May 2007 followed the first school placement and the students recognised that they were just beginning to integrate the knowledge they had gained through campus-based learning, self-study and field experience. Again, this supports the need to pursue this theme into the second year of the course. The course did not explicitly set a task that asked the students to create cross-course links; however, the first staff focus group had several staff who felt that this engagement has to come from the students:

'The expert becomes the students in their self-directing their own learning and their making links. And it's up to them to make the links themselves. It's up to them to find their own understanding. It's not for us to push something on them.' (Staff focus group 26 June, 2006)

Finally, the students were asked to self-rate their confidence level in engaging with PDP at the end of the year and this was compared to the baseline questionnaire findings. This issue arose from on-going development and research into PDP on the course where students find it difficult to engage with the process.

Table 5: Phase 2 students self-ratings of confidence in engaging with PDP

Confidence rating	Sept 2006 valid %	May 2007 valid %	Pattern of results
1 low	17	3	↓
2	22	8	↓
3	41	55	↑
4	17	29	↑
5 high	4	4	→ (small rise of 0.6%)

There was a drop from the lower categories of confidence (1 & 2) of 28%; the middle category of confidence level rose by 14%; and a rise in the categories of high confidence of 12%. The highest category of confidence stayed the same (a small 0.6% rise). It is pertinent to remember that only 14% of these students had prior experience of PDP before this year of University.

It is difficult to isolate the impact of the project from work across the course that encourages students to self evaluate and reflect, in particular, the Skills for Effective Learning module. On the other hand, the students received the same input on PDP as before, but the confidence ratings have increased from the previous cohort who had mainly decided to use a paper-based portfolio.

3. Impact on staff

What impact has the project had on staff? Has workload changed significantly? Do staff members involved in the project feel differently about the class or course now that changes have been made? How?

The staff focus group did not record any significant change to workload. While this may not have reduced the workload, it is worth noting that there has not been a significant increase in staff workload from the students sharing assets. This was partly addressed through establishing a clear etiquette for using the e-portfolio with students at the beginning of the



year. Tutor teams reported some observed improvements including improved action planning in Skills for Effective Learning resulting from the structure of action plans in Pebblepad. A separate project in Educational Studies that grew out of B.Ed's involvement with REAP has reported increases in students' mean exam scores following the module use of Pebblepad.

The final staff focus group raised two concerns for the course to consider:

- The possible over-use of Pebblepad in first year
- Possibly used too early (this is difficult to overcome as students need training to engage with the Educational Studies blended learning model)

While the mid-year student data appeared to agree with this, the final questionnaire suggests that students do identify learning benefits where they perceive that the tool is used in a purposeful way.

4. Impact on costs

How do you think that the changes you have made will affect the efficiency of class or course delivery in the future? Have costs been reduced? Or has quality improved significantly with no additional long-term costs?

Costs have not been reduced. Sustaining the project will result in new costs to the Faculty of Education but these are balanced against gains in student learning.

5. Sustainability

Explain how current project activities will continue in the department. What measures are in place to ensure that activities are embedded? Who is responsible for ensuring sustainability? Sustainability has been planned for in several ways:

- Pebblepad has migrated to a Faculty server to be maintained by University IT staff
- Vice Dean (Resources) has funded an increased amount of Pebblepad licences
- An agreement has been drawn-up of academic and IT services tasks to sustain Pebblepad
- The management of Pebblepad has been included in the job description of a member of the course management team
- The data from the project has been presented to the course management team and they are currently working towards sustaining and extending the integration of Pebblepad in the degree
- The project leader has networked with Pebblepad staff and other institutions using the tool through conferences and some of the tutor team communicate with this network through JISC
- A staff development session from Pebblepad has been booked for August 2007, aimed at key administration staff as well as representatives of the academic staff. This session is aimed at embedding at Faculty level some of the support that was provided by technical staff from the REAP project.

6. Plans for further development

Are other courses or classes in the department planning to change their assessment practices as a result of your work (please give details)? What do you think would need to change in your department if your REAP-supported ideas were fully adopted across all courses and years?

The course management team are currently examining at module level possible further integration of Pebblepad. The Course Director would also like to investigate e-assessment through the portfolio. In feeding back the research findings, the project leader was careful to reinforce that modules need to engage in discussion based on these findings; that these discussion need to focus on whether they feel they used the potential benefits of the technology and whether they feel they could capture this in future work.



7. Lessons learned

What changes contributed most to improving the quality of student learning?

The data suggests that this occurred where modules were able to look at the added potential in using the technology for tasks and where the students identified this as a purposeful use of the technology. The three most highly rated modules had common features:

- The task required peer interaction in the form of feedback or collaboration
- The task received tutor feedback – some feedback came through the portfolio tool but some came through students including entries in paper submissions for tutor assessment
- The tasks contributed to the summative assessment of the coursework, either directly or in preparing the students for this assessment

A hidden contribution is the collaboration that took place across course modules from Faculty staff from different departments. The project provided a locus for this collaboration.

What changes contributed most to reducing costs?

Not applicable.

What implementation issues were most important?

Across the project several implementation issues stand out:

- Selecting an e-portfolio that meets the course principles for PDP and facilitates the pedagogy of the course teams
- Providing staff development/discussions that meet the technical issues of using the e-portfolio and the pedagogical issues
- Investing in initial training for the students (the course had Faculty funding for this in project year 2 and will continue to fund this training)
- Recognising that tutor teams will buy-in at different levels and that involvement needs to be fostered gradually to encourage academic ownership of e-portfolio use in modules
- Appropriate technical support that facilitates the project but does not substitute for tutors' engagement with the technology
- The issues around migration and upgrading of the tool
- Whole course planning and collaboration

If you could start again, what would you have done differently? What lessons would you pass on to other departments undertaking similar projects?

Some of these are inferred from the above list. Hindsight is a wonderful thing! If we had known that the migration issue would last so long, we would have gone for an external upgrade of the version of the tool as the technical issues did come to colour some of the students' judgement of the learning benefits of the tool. Perhaps we would have selected a few examples of use in B.Ed 1 rather than a cross-year approach; however, would the amount of use have been an issue if the students had perceived the tasks as beneficial to their learning?

8. Future Research

Have any issues emerged from the project which merit further investigation or future development work by your department, by CAPLE or by other organisations?

Examples of student ownership of the tool that have come from students, particularly a pilot group in B.Ed 3, have been fascinating. A follow-through with this B.Ed 1 year group and a focus on a group of students using a qualitative approach to understand how students take ownership of the tool, how this use of a personal learning space benefits their learning and how it contributes to developing reflective practitioners would contribute to the limited body of research on the benefits and processes of PDP.



9. Dissemination

List the dissemination that has been done (or is being done) since January 2007 about project findings and outcomes, e.g. journal articles, conference presentations. Please give details.

- 17 January 2007- Gillian Inglis & B.Ed 1 & 3 students give input to Teaching and Learning Quality Improvement Committee at Faculty of Education
- 20 February 2007- Gillian Inglis presentation at Pebblepad Users seminar
- 16 April 2007- Gillian Inglis presentation at CRA-HEA conference on PDP
- 15 June 2007 Gillian Inglis presentation for Teacher Education Teacher's Work synergy conference with University of Glasgow
- 27 June 2007 paper by Gillian Inglis, Jane Thomson & Amanda Corrigan presented at International Society for Teacher Education conference, Stirling