University of Strathclyde: Faculty of Education

Using an e-portfolio to support Personal Development Planning

A REAP project interim case study July 2006

About the class

The Bachelor of Education (B.Ed.) (Honours) degree is a four year degree in primary education. The degree was revalidated in 2004 to incorporate Personal Development Planning (PDP) as a core component throughout the four years. The purpose of the PDP was to enhance the coherence of the student learning experience by integrating related work from modules across the course.

In the revalidated course, PDP involves students keeping a paper-based 'Progress File' to document their achievements and development needs and to reflect across their professional, academic and personal development at University. Progress File activities include keeping records of coursework and assessment; writing a 'reflective log' where students make on-going entries across any topic or event they wish to record and explore (e.g. an experience and what they have learned from it); carrying out an audit of professional or personal skills; the development of action plans and a CV. The Progress File provides an evidence-base that students can draw on for assessment work. See Table 1 for more information on Progress File activities.

The model of support for PDP is to provide greater scaffolding in the early stages of the degree with students expected to adopt increasing responsibility as they progress. Maintaining a record of development is essential for professional registration and subsequent Continued Professional Development (CPD). Hence PDP is particularly important in teacher education.

This pilot project focuses on first year B.Ed. students, a large class of 179 students. In the first year, PDP is embedded in a module on study skills and personal effectiveness called Skills for Effective Learning (SEL). Some activities in other B Ed 1 modules also feed into the PDP process. Assessment in Skills for Effective Learning consist of a mixture of formative and summative tasks including skills audits and an action plan, presentations and role play (assertiveness skills), peer and tutor feedback, paired supervision meetings with tutors to support PDP tasks and an annotated bibliography.

Drivers for change:

The following issues were identified during evaluations of the PDP process. An e-portfolio was seen as a way of resolving some of these issues.

- **Need for greater PDP support:** Students identified a need for further support for their PDP. Given the principles of PDP and the demands on tutor time a redesigned model of support including peer and tutor processes was needed.

- **PDP engagement with other parts of first year programme**: The previous model of integration with the rest of the first year course was that the co-ordinator for PDP identified tasks from other strands of the course (in collaboration with other class leaders) that students might incorporate into their PDP. This model did not require other parts of the course to really engage with the students' PDP.

- **Need for a platform for students to integrate school experience learning and campus learning**: Teacher education students today receive school placement experience at locations throughout across Scotland. A way of supporting students both on and off campus was required. There was also a need to help students make

inter-connections between placement learning, PDP, and on-campus learning and between theory and practice.

- **Limitations of paper-based format**: The paper based format was restrictive and difficult to maintain. Although it did allow the student to self-evaluate, it made PDP a lone activity and restricted opportunities for collaborative work and support, and social learning.

- **Supporting the B Ed vision of teacher for the 21st Century**:   The B Ed's underpinning vision is to develop teachers who will become "competent and reflective practitioners; flexible; professionals; committed to promote a love of learning; analytical; independent; a team-worker; and innovative", placing importance on independent learning skills, reflection and self evaluation, mutual support, and academic enquiry.

The Project

The objectives of the pilot project were to:

- to create an on-line form of PDP to facilitate the management and assessment of the process

- to integrate PDP more coherently with the rest of the B.Ed. 1 course

- to increase opportunities for peer and self assessment and support, initially in the module and then across the course

The principles of fostering self-regulation and independence in learning would underpin these activities

The Technology

After extensive investigation a technology was selected to support the implementation of these objectives. PebblePad is a user-friendly, web-based e-portfolio that students can use to store, organise and share resources and information created by them or sourced externally. A key feature of PebblePad is that the student is completely in control of the portfolio contents and can determine who has access to each resource and how they are shared. It also has communication tools and formats that when used appropriately can support reflection (e.g. students can annotate their own and each others' resources with reflective comments, there are formats for carrying out skills audits, action plans). Hence this tool has significant functionality to support self-managed learning, self and peer assessment and interaction and dialogue with peers and tutors.

This software is produced by Pebble Learning based at the University of Wolverhampton. It was decided to use their externally hosted service PebblePad in the short term rather than locally at the University Strathclyde. More time would have been required to install and host the software on local servers. External hosting gave time to evaluate the product during Phase 1 of the pilot. For further information about this tool see: http://www.pebblelearning.co.uk.

Figure 1: PebblePad (v1.2.2) main interface

Phase one pilot: January-June 2006

During January to June 2006 PebblePad was tested and its suitability assessed in relation to the long term project aims.

A number of activities took place in Phase 1:

1. Acquisition and customisation of the 'PebblePad' the online eportfolio system for use at Strathclyde
2. B.Ed. 2 students (9 students) trial PebblePad to explore how students might respond to and adopt it
3. Introduction of PebblePad to B.Ed. 1 (179 students), through lecture and post-lecture task, as a tool to help them complete their PDP activities (although at this stage they still had to maintain a paper-based PDP)
4. Awareness raising and skills training for staff on PDP and PebblePad
5. Collaboration of key B.Ed. staff from different modules to design learning activities that might be integrated into the PDP

Evaluation Methods

A variety of evaluation instruments were used in Phase 1 including focus groups and questionnaires with B.Ed. 1 and B.Ed. 2. Other data was collected through observation of the assets shared by students with staff and through . user statistics on student use of PebblePad. The staff perspective was represented through a focus group with the B.Ed. Project Steering Group as well as informal meetings of this group throughout the year.

B.Ed. 2 students pilot PebblePad

An initial trial group of 9 Year 2 students volunteered to pilot PebblePad to explore how students might respond to and adopt the software as a support for learning. This group were following the same model of PDP in their degree as the target group (B.Ed. 1) and were already maintaining a Progress File.

This pilot group were not given any formal instruction on how to use PebblePad, but were instead given the software and encouraged to use it through an initial informal task initiated by the Project Leader.

Many of these students embraced PebblePad and found it a valuable tool for supporting each other and sharing experiences, especially while away from university on placement. Examination of the assets shared with tutors revealed a high level of engagement and dialogue. Students explored links between educational theory and practice and debated some interesting issues such as diplomacy and developing appropriate use of disciplinary discourses.

Focus groups and questionnaires revealed that students differed in how they used PebblePad:

- A key value of PebblePad was to support learning during placement. One B.Ed.2 student commented "I began to fully appreciate how to respond to advice on this placement. I have had constant communication with students and tutors through the excellent computer software 'PebblePad."
- However, some students who had started to use PebblePad prior to placement ceased it during placement because they were also keeping paper-based daily evaluations of their school experience. In effect, they felt that the eportfolio added to their workload in this context.
- There were different views about asset sharing in PebblePad. In the focus groups, some students were positive about the benefits of sharing their own assets with others and getting feedback, while others thought it was beneficial to see others' assets but preferred to keep their own assets private.
- Some students noted that PebblePad resulted in a development in their own reflective writing.

Tutors who were included in asset sharing agreed that the degree of self and peer support that was demonstrated exceeded expectations.

Below is an example (with its author's agreement) of some of the discussion that took place during placement. This posting stimulated much in-depth discussion among students, through the 'comment' facility.

Figure 2: Extract from B.Ed2. PebblePad asset and discussion

Children and how they relate to each other... (Copy)

Description
Why do some children seem to enjoy the unhappiness of others?

Role Or Position
Student Teacher

Activities
Various class lessons, school trips and general school life.

Evidence
Behaviour of children. Time spent dealing with problems.

Reflection
In my time at this primary school I have found it astonishing how poorly formed the relationships between the children in upper school are. The children genuinely (and I know this is unprofessional to say) don't seem to like each other much. There are factions and friendships but they don't extend the bond to, say for example, covering up for their mates or to not adding in to a damning discussion leading to an individual being punished.

I remember being at school and having really tight knit buddies who I'd stick for and who'd stick up for me. And I thought with the concentration on citizenship and empathy between all pupils (regardless of religion, race or ability) would have improved on the experience I had as a child.

Introduction of PebblePad to B.Ed. 1

PebblePad was introduced to the 179 B.Ed. 1 students at the beginning of February 2006, through a lecture and demonstration from the Project Leader, linking to a post lecture task to be completed within 1 week. Comprehensive support materials were provided to guide students in this process. PebblePad was offered as a tool to help them complete their PDP activities (although at this stage they still had to maintain a paper-based PDP).

A pre-questionnaire on students' prior experiences of PDP and e-portfolios found that of the 92 respondents, only 22% had prior experience of PDP, and that this did not necessarily link to satisfaction with the PDP experience or feeling confident in engaging with PDP at University. No respondents had used an on-line format before.

Basic user statistics logged in the PebblePad software suggested that a little over half of the B.Ed. 1 year group logged in to PebblePad during the weeks following its launch, but this pattern was not maintained over the remainder of the year.

A follow up questionnaire on student's choice of PDP format (Paper-based or PebblePad) found that 20% of the 72 respondents had opted for PebblePad, or a combination of PebblePad and the paper-based format. Of these, satisfaction ratings with the eportfolio system were relatively neutral. They had been attracted by the format and the potential to reduce paperwork. The pattern of access was mainly from home with some use on the University campus. They reported having recorded reflective assets and undertaken some sharing with fellow students but none of the B Ed 1 respondents had shared assets with tutors.

The limited impact of PebblePad in Phase 1 was anticipated by staff in view of the late introduction during the academic year and the consequent lack of integration to planned coursework. This was owing to timescales for sourcing and implementing software, an issue which has now been resolved for Phase 2. The students who chose to remain with the paper-based format reported the most common reasons for their choice as: 1.preferred the paper format - (50%); and 2. that they had already started this format (48%) (students could choose more than one option). A small group (13%) reported difficulty in accessing computers with 6% citing the level of IT skills required as a barrier.

In Phase 1, the e-portfolio was supplementary to the PDP work; Phase 2 aims for a transformation of the B.Ed. 1 learning experience, with e-portfolio use being built in to programmed activities across all B.Ed. 1 modules (see future plans).

Awareness raising and skills training for B.Ed. staff

An important aspect of Phase 1 was the development work done with staff by the Project Leader for REAP in the B.Ed., who held a series of meetings and workshops with B.Ed. 1 staff throughout the year, familiarising and engaging them with the software, exploring associated concepts and pedagogy, and working with them on plans towards increasing integration and use of peer and self assessment. These plans will contribute to the transformation of the B.Ed. 1 learning experience in Phase 2. A development meeting was also held with B.Ed. 2 module coordinators, whose role would be important in supporting the new practices beyond first year.

The staff perspective on the Phase 1 pilot study was captured through a focus group with members of the B.Ed. REAP Steering Group. Participants felt that PebblePad met the learning style and communicative practices of contemporary students. They believed that Phase 1 had shown an initial need to master the basic skills in using PebblePad before staff and students could make creative use of the platform. Staff believed that a model of peer and self assessment embedded in learning could be supported by the e-portfolio, PebblePad. While tutors could identify effective use of PebblePad from assets shared, it was recognised that PebblePad had limited uptake in Phase 1. However, significant growth was anticipated

for Phase 2. Key factors in greater use would be the early introduction of the platform and the embedding of learning activities that called for the use of PebblePad in course modules. This would build on the groundwork done for this in Phase 1.

The focus group identified a need to shift the staff development input beyond the 'how to' level, to discussions related to staff feedback and intervention and managing student expectations and perception. This was because it was felt that transparency issues would emerge as use of PebblePad expanded, and students consequently become more aware of inevitable variations in approach from tutor to tutor.

A crucial issue is the tension that exists between maintaining the principle of confidentiality (i.e. students are completely in control of assets) while trying to monitor how students learn using PebblePad (this is an issue which is addressed in the section on "Future Plans").

Collaboration of key B.Ed. staff to design learning activities

The staff development work mentioned above brought staff together from across the B.Ed. programme. Building on this foundation, the Project Leader collaborated with key staff from every module in the B.Ed. 1 programme to design learning activities that would support and integrate PDP into the B.Ed., with PebblePad as the platform. In relation to REAP these activities would be expected to build opportunities for self, peer and/or tutor assessment.

Of particular note is the module ED111 "Learners and Learning" which has embraced these ideas to the extent of redesigning the entire delivery of student tutorial tasks throughout the year, and is now being considered a project in its own right.

For more information on activities in all B.Ed. modules, see Table 2.

Dissemination activities:

The work of the project has been formally disseminated at Department, Faculty and University level. Members of the Steering group have given presentations at the Childhood and Primary Studies Continued Professional Development sessions and the Strathclyde University Learning Enhancement Network, including an institution wide "Teaching and Learning Through Technology" conference at Strathclyde. The Project Leader, Dr. Gillian Inglis, will be presenting the work to the Faculty through the Teaching and Learning Quality Improvement Committee seminars in October 2006. She has communicated the developments of the project to the degree partners in the professional field through the B.Ed. Standing Committee of Head teachers. More informally, the project has been disseminated by attending national events such as the E-portfolios for Scotland's Teachers event in June 2006.

An example of how the influence of the B.Ed.1 activities is also 'rippling' out across the Faculty is the 2 year SEED-funded Combined Diploma for Early Education project. This is a 2-year project that is bringing together nursery and infant teachers to educate them to work in their own and respective settings. The group are using Pebblepad instead of their traditional paper-based file to maintain a record for the professional reflection and development element of this course.

Future plans

The next Phase of this Project will involve the implementation of the activities developed in Phase 1 (see previous section). In Phase 2, B Ed 1 students will be expected to use PebblePad from an early stage, and the paper-based Progress File will no longer be used. See Table 1 for more information on Progress File activities.

The B.Ed. 1 module leaders have collaborated to achieve planned changes across the entire first year curriculum, with activities feeding into the eportfolio now taking place in every B Ed module.

The plan is that students will receive information prior to their course in an introductory pack. PebblePad will then be introduced through an induction session and students will each receive a 2 hour computer lab training session to get them started with PebblePad. These activities are outlined in Table 2.

Some B.Ed. 1 students from 05-06 (having been provided with PebblePad in Year 1) have included in their first year action plans the intention to start to make using use of PebblePad in B.Ed. 2. A support session will be organised to give them another opportunity to 'get started'. There is also a pool of expertise in the pilot group passing into B.Ed. 3 that we hope to make use of and those students will continue to have licences and to feedback to the project.

Staff development work will continue with an intention to engage in discussions about approaches of interaction with students as staff gain confidence in the technology.

Different models of evaluation in Phase 2 are being considered, with the possibility of identifying a group of B.Ed. 1 students and following their use of PebblePad throughout the year. Evidence of how students are using the technology will also emerge through submissions and shared assets arising from programmed activities throughout the year. This will help address the challenge of monitoring utilisation of a system that is by nature private and controlled by students.

The University's IT services have installed PebblePad on a test server with plans to host PebblePad locally in the future. There is also a plan to extend its recent laptop provision for students on distant placements by making hardware available to other students. The B.Ed. course team are committed to this project as a long term development beyond the life of the REAP project. This is reflected in the fact that all first year modules will interact with PDP using PebblePad.

Staff involved: Dr Gillian Inglis

Table 1: Matching PebblePad to Progress File Activities

The table below shows a summary of Progress File activities and how they may transfer to PebblePad.

	CURRENT PROGRESS FILE ACTIVITIES	POTENTIAL IN PEBBLEPAD
1.	Coursework & assessment *Students are asked to collect examples of their coursework & assessment to provide evidence about their abilities.*	Students can keep use PebblePad to keep records of their progress as a student and attach work files of various formats as evidence
2.	Reflective log *Students receive an example of a reflective log entry and a tutorial on reflective writing. Students are then free to write this in a format that suits them.*	PebblePad provides various purpose-made formats to support reflective activities in different contexts and with varying degrees of structure.
3.	Professional development: *Students receive a benchmark audit template and exemplar, and complete a complete a 'benchmark audit for formative assessment', rating themselves against professional criteria for Initial Teacher Education.*	Students can use PebblePad formats to record on-going development towards these standards, based on information released electronically by the tutor.
4.	Key skills & personal development *Students receive a key skills audit template and exemplar and complete a key skills audit for formative self assessment.*	The custom built skills rating tool allows students to rate their progress under the University of Strathclyde 'key skills' and link this to evidence. Personal development towards these key skills or other personal goals can be recorded in the same way as reflective log items.
5.	Action plans *Students receive an action plan and exemplar and complete an action plan for summative assessment.*	The PebblePad 'action plan' takes students step by step through the process of creating an action plan and also includes a useful SWOT (Strengths, Weaknesses, Opportunities, Threats) tool
6.	CV *Students receive an exemplar of a CV. Onus is on students to devise their own CV.*	The webfolio tool is well suited for use by students to produce a polished CV with attached evidence. The latest version of PebblePad also includes a CV builder tool.

Table 2: Redesigned activities across the entire B.Ed. 1 Programme

ED111 Educational Studies: Learners & Learning: In a significant redesign of activities in this module, PebblePad will be used to aid the management and effectiveness of a series of inter-tutorial group work tasks conducted by tutorial subgroups. This will facilitate collaborative processes and time on task in a staged way throughout the module, provide increased and more timely feedback through peer processes and sample tutor feedback, help students to create their personal portfolio electronic management, and reduce and redistribute tutor workload.

PE108 Mathematics: Students carry out an audit of their maths ability at the beginning of the module and review this later in the module. The PebblePad 'ability' format will be used to help students focus early on areas of weakness, plan appropriate study and review their progress prior to the exam.

PE109 CURRICULAR STUDIES 1B

Environmental Studies: Students do field studies in their local area and produce scrap books of their findings. This is assessed through self and peer assessment, and a review of peer assessment. PebblePad will be used to facilitate management of the self and peer review process, through utilisation of the 'thought' format, 'commenting' tools, and use of group 'gateways' where students may view each others' work.

Expressive Arts: Adoption of PebblePad will allow reinstatement of an area of work on creativity which had been lost through course time constraints: students will now use PebblePad to participate in inter-tutorial tasks to encourage them to explore their definitions of art and their creativity.

Religious & Moral Education: In their 'Personal Search' students use popular media to explore their values and attitudes. PebblePad will be used to support sharing of ideas and collaborative work around this task.

Health: Students participate in a collaborative task to analyse "Health Promoting Schools" case studies, and formulate questions for a tutorial. The task rehearses what the summative assessment will ask them to do for their credits.. PebblePad will be used to facilitate students to record their thoughts and conduct peer work.

PE110 CURRICULAR STUDIES 1C

Language: Creation and sharing of records through PebblePad will facilitate support collaborative work in a task where students analyse pupils' literacy profiles. These scenarios allow students to rehearse aspects of a summative assessment.

Teaching & Learning: Students on first year placement in schools receive a peer visit. PebblePad will be used to support a review of peer visit and feedback, through creating and sharing of records. This will also integrating personal effectiveness skills taught in PE 112 Skills for Effective Learning.

PE111 Placement Learning 1: Placement 1: See Teaching & Learning as T&L is the programme of preparation for the placement.

PE112 Shared Learning: Skills for Effective Learning with PDP: A number of activities in this module, also the 'home' module for PDP, have been redesigned and will be supported through PebblePad, ranging from skills ratings and benchmark audits and action planning, to focused learner questions and peer assessment of oral presentations. The emphasis is on developing autonomous, insightful learners through use of active learning, self and peer assessment, dialogue, and integrating knowledge from different areas of the B.Ed. One interesting development is the introduction of PebblePad to support the student mentoring initiative, where each first-year student is allocated to a mentor from B.Ed. 3 who provides support throughout their first year.