

## Case study: Capturing and Enhancing the Experiences of International Students using ePortfolios

### Abstract

Increasing numbers of international students are being recruited onto technical postgraduate courses which creates a challenging environment for teaching staff who want to help these students develop valuable professional skills for their subsequent use in the workplace. This case study reports on the use of freely available online tools, for students to record their personal learning development with portable ePortfolios.

### 1. Background

Technical postgraduate courses at Sheffield Hallam University (SHU) include opportunities for students to develop 'professional skills' that will prepare them for employment, including report writing, project management, poster presentations, critical reviews and personal reflections. International students find such activities challenging, especially if their prior education has focused on writing for 'technical' reporting rather than personal expression, and therefore they can miss valuable opportunities to develop professional skills. Using 'Constructive Alignment' (Biggs, 2003) and experiences with ePortfolios (Barrett, 2007), we have designed a non-credit bearing curriculum to assist cohorts of predominantly international students build their own ePortfolios of evidence in the development of these professional skills.

### 2. Methodology

**Step 1 – Gather Evidence.** Using informal one hour weekly sessions, students are shown [www.blogger.com](http://www.blogger.com) as a means to record simple notes. Firstly they are asked to write short accounts of their learning experiences. Then students add photos and video to their blogs, which prompts them to write when they are 'lost for words'. Academic staff are asked to make the students aware of opportunities to record experiences (including 'non-technical' experiences), such as preparing for a presentation or assignment, or working in groups.

**Step 2 – Self Assessment.** Tasks include identifying the skills they think that they need for an advertised job, assembling a curriculum vitae (CV), and becoming more self-aware by assessing their skills and experience against professional body (e.g. IET or BCS) development frameworks and creating a skills matrix. Artefacts such as CVs tend to be presented as documents and so the students are also prompted to use Google Docs (<http://docs.google.com>).

**Step 3 – Organise Evidence.** Students use the skills matrix from Step 2 to create a 'map' of the evidence they have by hyperlinking to support materials (blog entries, documents, photos, video narratives, emails, comments from other students, feedback from academic staff, etc.).

**Step 4 – Create Narrative.** Once the evidence is organised a narrative can be written (blog, document) or recorded (MP3 audio, video clip) to describe a route through the learning.

**Step 5 – Evaluate.** Students record and provide feedback for each other on their portfolios using VoiceThread (<http://voicethread.com/about/>). The advantage of this approach is portability and adaptability, as ePortfolios can be appended to or modified even after the student has graduated.

### 3. Issues

Providing questions as prompts to encourage reflection helps at the early stages. We find that using video clips/photos to inspire writing has helped students overcome their initial anxieties towards writing. Very quickly the students' ePortfolios take on an identity, and production of the evidence becomes automatic. For academic staff, initial training is required though it is minimal and can easily be performed informally. A considerable amount of formative assessment is required and this can be challenging since it requires a more values-based approach to assessment. We referred to Biggs (2003), ensuring that the intended learning outcomes, the learning activities and the assessment criteria were aligned beforehand.

#### 4. Benefits

Both international and home students are demonstrating more self-awareness by reflecting upon their progress and creating more focused developmental plans. This helps students during their final dissertation when they need to conduct a thorough evaluation. Each student has many experiences, and the ePortfolio allows them to experiment with audio and video, which is not normally part of their curricula. GoogleDocs enables students to review their peers' work and to comment, providing more opportunities to practice expression in writing (or orally through multimedia). ePortfolios can be assembled rapidly, often for a range of purposes. Explicit links between the taught curriculum, and the informal ePortfolio activity has proven instrumental in getting student engagement. We are now preparing a 'professional expertise' module based on a portfolio of evidence, as an alternative to a 15,000 word report, aligning learning experiences better with employers' demands. Key benefits emerge from the **process** of building ePortfolios, for example in helping students practise skills which are useful for other forms of assessment.

#### 5. Evidence of success

Two key aspects are being fed back to us by the students. Firstly, international students are demonstrating improved confidence when they represent themselves orally. Secondly the students value the process of assembling ePortfolios as preparation for job interviews. Even if they do not present the actual ePortfolio at an interview, the process of reflecting and reviewing their evidence enables them to realistically evaluate and articulate their own abilities.

Statement	Response
I feel that I can learn from building my ePortfolio	83% Agree or Strongly Agree
I feel more confident about explaining what I have learned	94% Agree or Strongly Agree
My portfolio has helped me prepare for job interviews	100% Agree or Strongly Agree
I have experimented with technology because I can put it into my ePortfolio	61% Agree or Strongly Agree

#### 6. How can other academics reproduce this?

Colleagues are encouraged to consider the learning outcomes that an ePortfolio might deliver and then construct appropriate learning activities with reference to Biggs (2003). The ePortfolio is a convenient means of developing skills whilst students collect the evidence of that skill, and can be experienced in the first instance by academic staff compiling their own ePortfolios. A simple guide can be found at: <http://tinyurl.com/eportfolios>

#### 7. Reflections

Once the students are into the 'collection' habit and the reviewing of artefacts is underway, it is possible for the students to deepen their reflections so that they can produce action plans for their own development. As portfolios begin to take shape, it is advisable for staff to stand back and to adopt the role of mentor. Finally, staff find it useful to use the previous cohorts as alumni, as these graduates will provide welcome peer encouragement.

#### 8. References

Barrett, H. C. (2007). 'How to create an electronic portfolio with GoogleDocs'. Available from: [http://docs.google.com/View?docid=dd76m5s2\\_8qn28xv](http://docs.google.com/View?docid=dd76m5s2_8qn28xv) [accessed 28/01/2009].  
 Biggs, J. (2003). Teaching for Quality Learning at University. The Society for Research into Higher Education, Open University Press, McGraw-Hill Education.

### Background information

<b>Discipline</b>	<i>Technical – network, communications and software engineering</i>
<b>Participants</b>	<i>78 students, 2 lecturers</i>
<b>Level</b>	<i>Postgraduate (level 7)</i>
<b>Pedagogical Approach</b>	<i>Enquiry Based Learning (EBL)</i>
<b>Teaching Methods</b>	<i>Face-to-face tutorials, group and individual surgeries, collaborative work, online discussion</i>
<b>Materials Required</b>	<p><i>Teaching resources for use with students: access to the internet, and use of free online tools such as Google Docs.</i></p> <p><i>Resources for staff preparation:</i></p> <ul style="list-style-type: none"> <li>● <i>Biggs, J., (2003). Teaching for Quality Learning at University. The Society for Research into Higher Education, Open University Press, McGraw-Hill Education.</i></li> <li>● <a href="http://tinyurl.com/eportfolios">http://tinyurl.com/eportfolios</a></li> </ul>

<p><b>Assessment used</b></p>	<p><i>Formative assessment is present at every session with staff. The use of collaboration tools means that peer formative assessment is on-going throughout. Since the experience is non-credit bearing and the portfolio is a working collection of artefacts there is no official summative assessment, only the latest evidence of formative assessment.</i></p> <p><i>When providing feedback, staff use the following questions as prompts:</i></p> <p><b>Presentation</b></p> <p><i>Are there any dead links?</i></p> <p><i>Is the content structured in a logical way?</i></p> <p><i>Is there more than one way of navigating content?</i></p> <p><i>Is the standard of English suitable?</i></p> <p><b>Evidence</b></p> <p><i>Is there a holistic view of the learning?</i></p> <p><i>Are there any case studies that demonstrate a range of abilities?</i></p> <p><i>Is there any evidence of applying knowledge to practice?</i></p> <p><i>Is there evidence of self-awareness?</i></p> <p><i>Is there a reflective commentary or narrative?</i></p> <p><i>Is there evidence of action planning, related to any self-assessments?</i></p> <p><i>Does the self-assessment relate to a professional development framework?</i></p> <p><i>Is there any meta-reflection evident?</i></p> <p><i>Is there reflection evident in terms of achievements?</i></p>
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