

# Electronic Professional Practice

## Portfolios and Digital

### Literacy Skills in Teacher Education

**Electronic Professional Practice Portfolios and Digital Literacy Skills in Teacher Education**  
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Professionals in Practice

What does it mean to be educationally 'literate' in 2016? The term 'literacy' is now applied to an ever-increasing variety of practices in education, knowledge and learning (Lankshear and Knobel 2008). Forms of 'New literacies' have emerged and with them a range of new terms such as: 'digital literacy', 'social media literacy', 'computer literacy', and 'media literacy' (De Abreu and Mihaildis, 2014). Technological Literacy skills enable and empower learners to explore new eTools; including information and communication technologies, allowing them to build strong social networks which facilitate the exchange of information, knowledge and skills among community of learners.

Trainee teachers need to have a good understanding of the diversity of all these emerging new literacies and to be competent and skilled practitioners in these areas, to improve their educational practice, in preparation for future employment and to promote continuing professional development.

Indeed, the government Further Education Learning Technology Group (FELTAG) report (2014) highlights that a digital future is now expected by learners and employers, so encouraging trainee teachers to become competently IT literate, and to embrace digital literacy, is a key priority in teaching and learning.

Over twenty years ago Mandinach & Cline (1994) asserted that that educators '*should be able to recognise when information technology can assist or impede the achievement of a goal*' (p.35). They discuss the level of confidence of educators in the use of technology for educational purposes, consequently encouraging future '*educators to embrace technology to enrich pedagogy*' (p.48).

The University of Bolton Teacher Education Programmes believe that the digital 'future' is happening now and we have been working towards sustainable and scalable educational approaches to embrace pedagogically-rich technologies. An example is the use of ePPP. Indeed, for the past 18 months the teacher education team have explored and promoted ways in which trainee teachers can demonstrate their digital skills and knowledge in a variety of tasks, activities and interactive individual and group work, with intense use of our Virtual Learning Environment (Moodle), as well as promoting the use of digital tools and social media and networking for academic purposes (i.e. Academia.edu, Facebook, twitter, and classroom blogs as 'classroom' forums among others) for group work. However, one of the most comprehensive digital tools

required to our trainee teachers is the development of an organic *Electronic Personal Professional Portfolio* (ePPP).

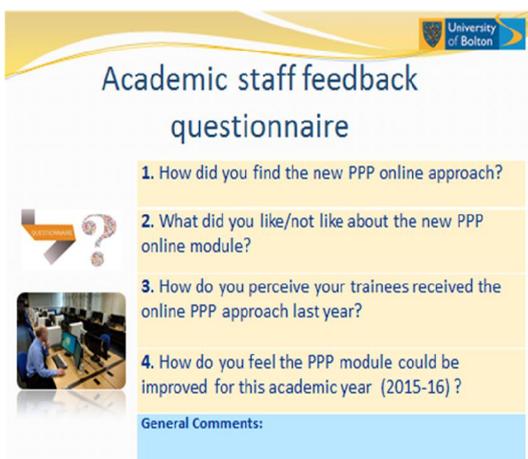
The ePPP allows trainees to demonstrate their effectiveness in 'digital literacy skills' by creatively, yet comprehensively, putting together a portfolio of 'digital' evidence of their growing professional practice. Another aim of the ePPP portfolio is to prepare trainees to apply for QTLS status post course completion.

The ePPP project was piloted during the academic year 2014-2015 and subsequent reflections share the experiences of moving from a paper-based provision, to a fully online ePPP, including some enhancements to our initial design and approach, as well as staff development and 'best practice' guidelines.

## Evaluating the first pilot for the PPP

The pilot project initially used the institutional VLE (Moodle 1.9.), moving away from the paper-based PPP used previously; aiming to further embed digital literacy skills within Teacher Educator programmes. The assessment for the module was in the form of an electronic portfolio in which trainee teachers provided evidence related to their personal and professional development as a teacher in the Further Education (FE) and Skills sector. The portfolio was completed entirely online throughout the course and after the final submission of evidence, the trainee teachers and staff delivering the programme were asked to comment on and evaluate the functionality and efficiency of the ePPP. Data was collected at the end of the course via questionnaires (see Figures 1 and 2). The research data discussed is therefore based on formative qualitative research, involving members of academic staff (tutor) and students from the University of Bolton. The views, comments and ideas of the participants were used to move the ePPP forward, basing improvements around the lessons learned and sharing good practice, aiming to improve the pedagogic effectiveness of the online experience.

**Figure1**  
Tutors' Questionnaire

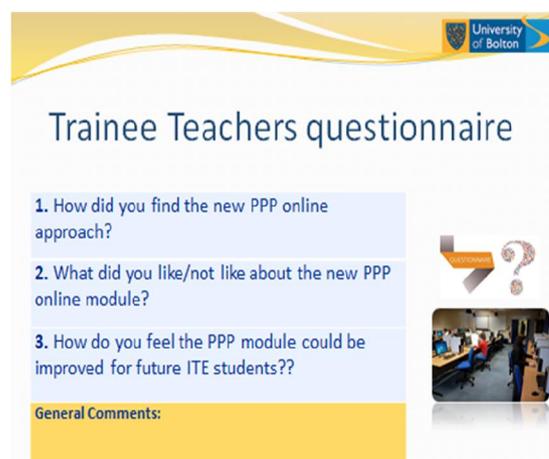


The screenshot shows a questionnaire titled "Academic staff feedback questionnaire" from the University of Bolton. It contains four numbered questions:

1. How did you find the new PPP online approach?
2. What did you like/not like about the new PPP online module?
3. How do you perceive your trainees received the online PPP approach last year?
4. How do you feel the PPP module could be improved for this academic year (2015-16) ?

Below the questions is a section for "General Comments:".

**Figure2**  
Trainee Teachers Questionnaire



The screenshot shows a questionnaire titled "Trainee Teachers questionnaire" from the University of Bolton. It contains three numbered questions:

1. How did you find the new PPP online approach?
2. What did you like/not like about the new PPP online module?
3. How do you feel the PPP module could be improved for future ITE students??

Below the questions is a section for "General Comments:".

## Tutors' Responses

Although it was a big step and a steep learning curve for some, encouraging responses identified that tutors thought it was a positive move to a digital format, remarking they had initially thought that uploading large amounts of work (evidence) would be difficult, however the experience showed otherwise, with a very simple way of uploading documents; they commented that the online format made it much easier to view trainees' work 'on demand' and provide feedback; enabling them to keep a track on trainees' progress and send them

timely reminders to upload due tasks. An additional advantage noted was the fact that the ePPP allowed trainees to work from home instead of having to bring heavy and bulky files in. Tutors also felt the online portfolio format provided good evidence of learner achievement and professional development, acknowledging that creating an ePPP clearly promoted ICT, signalling the importance of this in the future to trainee teachers.

However, some tutors pointed out challenges of the initial adjustment from a paper based approach to a fully online format, identifying difficulties in online marking, tracking discussion forums and lack of time for further planning and development. One teacher commented that she would “*still love to see a paper version printed off ...*” indicating it will take time for some tutors to become comfortable with a digital format. In a study carried by Cope and Ward (2002) it was found out that ‘*experienced teachers who had little or no professional development in the use of technology in the classroom, were less likely to use it in the classroom and were less likely to see the benefit of technology usage in the classroom*’ (p. 73). This seems to be one of the key reasons for the comment we received about preferring a paper version of the ePPP printed off.

Additional comments were made regarding the interface of the PPP Moodle platform, suggesting it was slightly overcrowded and that a “*better design to view the module at a glance would help*”.

## Trainee Teachers’ Responses

Trainees liked the fact the module was all online and easily accessible, avoiding the pitfalls of losing hand-outs and carrying heavy files to the University on tutorial days. However it was interesting to note that some of the more vocational trainee teachers, such as those in hairdressing did not like the electronic element, perhaps due to a lack of experience and exposure with online learning or a need for training in ICT skills (Pullen and Varley-Winter, 2014).

Some negative responses centred on the interface of the PPP Moodle site, suggesting that some trainees found it confusing at first, resulting in tutors adjusting and ‘*personalising*’ the standard layout (adapting it to a friendlier look for their own group of trainees); feedback from trainees indicated that tasks and information needed to be made clearer and better designed, with bigger fonts.

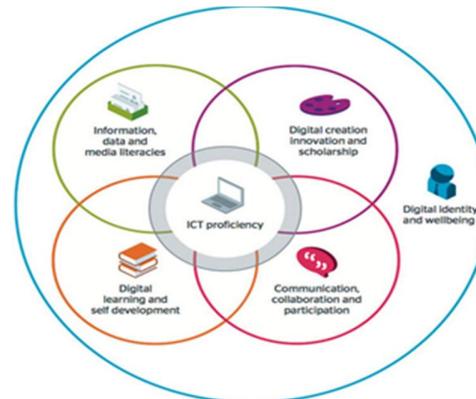
Good practice was also highlighted by some trainees who noted that they found it helpful to be taken to the computer rooms as a group, to go through the different sections on Moodle as a class. Trainees acknowledged that preparing the online portfolio was useful in preparing them to build evidence from which to apply for QTLS after the course finished; one trainee commented that it was useful to log her personal development and progress in preparation for her new teaching role, using the information to structure her ideas for the QTLS workbook.

## Action areas Identified

The responses received were used to identify action areas for development, many of which centred on the design of the PPP Moodle interface. It was clear that the PPP interface format needed to be simplified, and to be more user-friendly. Closer analysis revealed that the interface contained too many random pictures and that the layout was too cluttered in parts. Recent studies (Ofsted, 2014) show that best practice when using VLEs is to ensure that front ends are laid out in a logical sequence so that learners can follow the information presented intuitively, accessing resources and links in a way which boost their confidence to use technologies and encourages them to learn independently. Indeed, as some feedback indicated that trainees were sometimes unsure where to upload assignment parts, so more specific and logically designed sections for submission of work was required and more sections for uploading separate pieces was identified as a development opportunity.

It is part of the University of Bolton's strategic plan to strengthen students and staff's overarching approach to Digital Literacy, in line with Jisc's (2015) policy on 'Developing Digital Literacies' (Diagram 1). In a collaborative approach to improving teaching and learning, the teacher education team at University of Bolton has engaged in a series of staff development sessions to improve their own digital literacy skills and knowledge on how to use Moodle 2.5.

**Diagram 1**



Staff have engaged in development sessions on how to provide efficient online support strategies, *Turnitin*® assessment and feedback, and the use of plug-ins in Moodle. Staff are moving towards marking and providing feedback fully online, supported by staff training on marking using *Turnitin*® and Moodle 2.5. It is acknowledged this is an on-going process and that further needs will be identified, such as standardisation of marking online and to ensure timely dissemination of best practices.

### The Future of ePPP at the University of Bolton

The University of Bolton Learning Teaching and Assessment Strategy (2015 -18) supports the University's Strategic Plan (2015-2020) to deliver a 'Teaching Intensive, Research Informed' (TIRI) student experience (The University of Bolton, 2015). The Teacher Education team will play a major role in the TIRI agenda, actively participating in educational action research on the ePPP in order to provide research informed, distinctive high quality, student-focused programmes which explicitly meet the needs and expectations of trainee teachers and the learners they will be teaching. The Teacher Education Department supports the University of Bolton over-arching strategic aim to improve and transform the learning experience of students, through the development of a community of learning, promoting cultural values and informed educational perspectives.

The UK Quality Code for Higher Education (HE) notes that HE providers must work with staff and students to articulate and systematically review and enhance the provision of digital learning opportunities and teaching practices, so that students can develop as independent learners (QAA, 2015). By enhancing trainee teachers' digital literacy skills in building ePPPs, it is anticipated that the university is fulfilling its potential for 'Teaching Excellence, Social Mobility and Student Choice' (DBIS 2015), therefore meeting the new Teaching Excellence Framework (TEF), which aims to recognise and reward high quality teaching.

In 2016 the teacher education team will continue to research and critically analyse the extent to which existing pedagogical practices enable a diverse group of trainee teachers to enhance their digital literacy skills in a rapidly changing on line educational forum. The team will examine barriers to online pedagogy, encouraging a collaborative approach to teaching and learning, aiming to develop a range of strategies that can be deployed to support learning. Initial Teacher Education (ITE) programmes move forward into 2015-

It was clear that tutors cannot assume that all trainees are 'Moodle savvy'. Some trainees need more support and guidance on navigating the PPP Moodle site and therefore tutors need to factor time for this into taught sessions, allocating intervals throughout the year to solve any emerging issues; enabling learners to complete some online tasks with tutors being there to support. It was felt this would be beneficial, giving trainees more confidence and motivation to have become more autonomous as a result.

## Progress Achieved

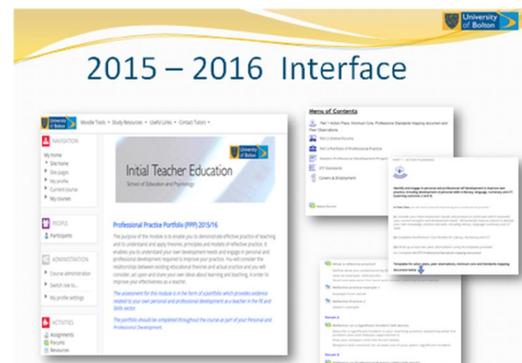
This academic year (2015-16) the University of Bolton moved to using Moodle 2.5 as it was considered as a more user friendly VLE for both students and tutors. It was felt that Moodle 2.5 would offer more opportunities to update and improve the design of the ePPP. Moodle 2.5 offers more options for uploading documents using a drag and drop facility; it also allows more options for editing documents and more available plug ins, which the ITE team explored further and assess their applicability to enhance further the ePPP.

In conjunction with the eLearning team at the University of Bolton, the PPP interface was redesigned to create a less cluttered and better organised layout. Pictures were replaced with custom designed intuitive icons and submission upload points made clearer; figures 3 and 4 demonstrate this development.

**Figure 3**  
Moodle 1.9



**Figure 4**  
Moodle 2.5



Timetabled ICT sessions have been built into the curriculum including hands on introductory sessions to Moodle enabling trainees to complete some tasks with tutor support, helping to boost confidence, enhance learner motivation and promote independent learning. Additional support has been put in place to build trainees' digital literacy skills (Ofsted, 2014) in the form of a 'Skills for Success' unit coordinated by a graduate intern. Trainee teachers can receive one to one ICT training sessions on using Moodle and how to build online portfolios. The University of Bolton *Skills for Success Unit* also offers Moodle online support via a discussion forum and academic development sessions are in place in the academic calendar.

16 with a firm resolution to adapt, modify and enhance the provision to meet the challenges of an ever-changing landscape in the Further Education (FE) and Skills Sector.

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