E-Apel:
Using technology to Support Lifelong Learning

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Introduction

The need for an investigation into the potential for developing "E-APEL "tools" arose due to the rapid growth in demand for negotiated work based learning programmes at University level. A prototype tool has now been developed and the development of this tool will form a key part of the discussion during this paper.

The UK Department of Trade and Industry "Global Watch" report on current and anticipated trends in the United States "Beyond e-Learning" highlighted a trend towards people development based on desired job-related learning outcomes with more emphasis on accreditation, apparently representing a move toward wider use in industry of the problem-based learning approach previously adopted in professions such as medicine. (E.g. Staunton and Grant 1999) These findings are strengthened by the UK Skills report: Prosperity for all in the global economy – world class skills, published by Leitch (2006) which recognises that for sustained economic growth the workforce needs to be qualified to HE level 4 or above, and that many of these potential learners are already in the workplace.

Corradi (ed) (2006) describes a trend toward increasing attention across Europe to the use of APEL to support the widening participation agenda. These trends suggest in future the number of learners (and employers) approaching Universities and seeking APEL recognition may increase, again supported by Leitch.

The University of Derby has already reported that 85 to 90 percent of individual learners applying for the Lifelong Learning Scheme also hope to achieve appropriate recognition and Accreditation of Prior Experiential Learning (APEL) (Haldane et al,2007). The University's process for APEL, which closely follows the Guidelines on the accreditation of prior learning from the Quality Assurance Agency[1], was a largely manual one, with two factors placing a strain on the resources allocated to this process:

- The manual system for APEL could not easily be scaled up to meet the increase in demand.
- Much of the work required by APEL needs to be undertaken before the potential student makes a commitment to study and pays any fees.

When exploring the possibility of using technology to support this process certain parallels were seen between the uses of technology to support diagnostic questioning in the context of online learning at HE level and the diagnostic questioning used in semi-structured APEL (Haldane et al, 2007). However, authors such as Lueddeke (1997) and Puget and Osbourne (2004) have described a process in which the tutor's probing of the intellectual capabilities previously demonstrated by the learner in the context of developing and applying the knowledge base is essential. Gray, (2001)

[1] *Guidelines on the accreditation of prior learning*. . . . . The Quality Assurance Agency for Higher Education, September 2004.

identified the scope for technology to mediate an action-learning approach to work-based learning and the UFI learndirect (www.learningthroughwork.org) VLE supports the development of an individual learning contract online. Authors such as Ball et al (2000) describe the capturing evidence of achievement within e-portfolios, but there appears to be little evidence to date of this approach being extended to APEL.

This paper will discuss how certain practical difficulties and perceived barriers associated with the APEL process, particularly; the investment of time necessary on a one to one basis between a tutor and the prospective APEL candidate can be ameliorated through the use of technology. It presents an overview of the development of an e-APEL system, which facilitates to a significant extent the informal pre-entry estimation of the likely scope for a claim, addressing the practical difficulties and subsequent potential barriers identified.

Practical Challenges Associated With APEL

Although the University of Derby has seen a significant increase in the demand for APEL, this is not reflected across the sector. In order to determine the challenges faced by APEL practitioners and learners within HEI's a workshop was held at Workbased Learning Futures III conference, to generate discussion and allow representatives from a variety of organisations to identify the challenges and barriers they have personally experienced. This discussion is summarised here, with key points for consideration presented below.

APEL enables learners to gain credit for their experience, it potentially offers them both access to higher education programmes and advanced standing within programmes. This can enable the learner to progress more quickly within a programme of study, which is a benefit to part time learners.

Staff may also recognise the value of APEL to the individual student, but sometimes feel that the amount of work that the student is required to do for an APEL claim is disproportionate to that required by the assessment for the module and that, as such, the experienced learner may simply be better off "coasting "through the module and undertaking the formal assessment. Staff may also feel that offering support to learners through an APEL claim is more time consuming for them, as individual guidance and support has to be given.

Access to APEL for learners therefore can be difficult, whilst all HEIs have a policy about APEL and issues guidelines on the processes and procedures; this tends to be regulatory rather than as guidance to the student or member of staff.

The availability of APEL is often not "advertised" at university or programme level, leaving the learners to seek it out for themselves, and many are not aware of the facility. Where learners do wish to make a claim, finding the correct member of the academic team for guidance can be difficult, with responsibility and enthusiasm for APEL often resting with a few "champions". This can often lead to lack of clear guidance about how to make the claim, and lack of support during the making of the claim. Initial guidance and questioning of students can be done generically, with more detailed support provided once the initial guidance is understood. However request for such guidance and support often occurs on an individual basis, which requires a significant amount of time for the APEL tutor. The tutor needs to have some background knowledge to the students experience to enable them to maximise the amount of APEL claimed. This in itself can be a time consuming process, with learners themselves not recognising the learning experiences that may be useful to contribute towards a claim, so time needs to be spent in encouraging the learners to articulate their experience and reflect on the learning that they have done.

Learners who are very experienced are often put off by the thought of having to site in a class of teenagers learning about things that they have been doing

for a significant period of their working lives. If learners can undertake and APEL claim to avoid such repetition of learning they remain engaged and enthused, rather than becoming bored and frustrated at going over old ground, focussing their attention on new learning- often in the development of academic skills, to be able to express this learning in a more recognisable academic format.

Recognising learning experience from the workplace enhances the learners self confidence by demonstrating that the university values vocational experience and the translation of theory into practice. Often these learners have not been involved in study for a significant period of time and may lack confidence in their ability to study, or indeed know how to study at higher education level. By valuing these experiences, and encouraging them to write about familiar subjects, relating these to higher education level indicators confidence is gained, and learners begin to understand the way in which to construct discussions relating theory to practice. In the preparation of the APEL claim they also begin to understand the language and jargon of HE.

At some HEI's there is a financial benefit to learners who undertake APEL instead of the formal module, with a reduction in fees for the module(s) undertaken. This can be done on a modular basis or on a sliding scale dependent on the amount of credit being claimed. At our institution learners pay 30% of the module fees.

The issues and benefits argument considered above have been contextualised and are visually presented in figure 1 below. The Open University's Compendium mind mapping tool was used to capture the discussion in real time, allowing the workshop facilitators to demonstrate that the use of technology, when fit for purpose, can be beneficial to both participants and presenters. The participants were able to see the discussion evolve, encouraging the interactive element of the workshop which allowed links to be made between the factors identified, enhancing the debate as it happened. This enabled the facilitators to probe contributors, extracting all the relevant information required to develop a richer picture. The use of the software was highly beneficial as it not only real time data capture but removed the need for subsequent transcription, making the feedback process more reliable and efficient.

The e-APEL Project

Why did we need the e-APEL tool?

In order to upscale the availability of APEL and maximise the potential use of APEL by learners we needed to offer comprehensive guidance to reduce the number of individual tutorials being held, often with no revenues attached. This was emphasised by the increasing demand for our individually negotiated work based learning programmes, run by a small team of enthusiastic academics who could not cope with a large increase in the amount of APEL activity. However, we recognised that much of the initial support, encouraging the learners to reflect on their learning to date and to begin to match it to HE level indicators, could be done electronically adopting a structured approach based upon our experience using the learning through work site offered by UFI. We recognised that by offering such a facility we would enable learners to prepare for a more in depth discussion, which gave them confidence as well as a basic understanding of some of the terminology used in HE.

It soon become apparent that if we were able to "automate" some of the process we would also be able to enhance awareness of APEL to the learners across the university. This could additionally serve as a useful marketing tool to attract non traditional learners and part time learners to the university.

The University of Derby in collaboration with the University of Wolverhampton, Manchester Solutions and the Small Firms Enterprise Development Initiative (SFEDI) were successful in bidding for JISC project funding to develop the electronic APEL guidance tools. The JISC e-APEL project ran from September 2006 to September 2008 and was funded under the e-learning program stream, led by the University of Derby.

How did we design the tool?

The project development team consisted of 2 academics, experienced in supporting learners through the APEL process, a project manager with an understanding of educational design and an educational technologist.

The academics began by mapping out the work flow of supporting an APEL claim, from initial enquiry to formal submission and evaluation of the claim itself. This lead to the identification of key interventions and questions required at each stage of the APEL process, together with the documentation required to support the claim, thus providing the model framework for the technologist to build the tool. The project team recognise the vital importance of this initial process review stage, as it enabled a detailed understanding of the current APEL processes to be developed by all those working on the tools. As a result of the process review, it became apparent two tools would be required, the learner facing interface to collect the required information to create a potential proposal, named the Estimator, and the tutor facing Advisor tool which collated the information and presented a summary for the tutor to review. It also allowed the tools key requirements to be determined, which led

to a product specification to be drawn up which informed the design process at every stage. These requirements are summarised below and the necessary subsequent product features are discussed.

The Estimator Tool

The project team recognised that the tool could be used both for learners on existing programmes, who had a clear goal and learning ambition, and for those new to or tentatively enquiring about higher education, who had no experience of the language or clear idea of what they wanted to learn. The tool needed to be flexible enough to accommodate the needs of both types of learner, whilst educating them in the terminology of Higher education. In order to achieve this language was simplified to ensure clarity whilst promoting confidence in the learner that they had the required knowledge to study at higher education level. It was deemed necessary to include some academic key terminology and references, as this would be an important part of preparation for the initial tutor discussion and if successful their future academic study. Therefore, a glossary of terms was included within the guidance text to introduce this language to the learner at the relevant process stage.

Of particular importance was the availability of guidance at the point that it was needed, e.g. “just in time” guidance, which used real world examples to illustrate and support the learners’ reflection. A key requirement of the tool was that this guidance text needed to be easily accessed and edited by the academics themselves and should not require specialist programming skills. Thus, where amendments to regulation were made or enhancements suggested in feedback from learners using the system, the guidance could be quickly and easily amended. A wiki was created to act as the Estimator tools content management system, allowing instant access to the guidance text for authorised tutors. The wiki facilitated group contribution to be made without the inherent difficulties as each tutor could easily view any changes and edits and also make any edits whilst being able to see the student view. This meant many revisions to the guidance text could be made without the need for standard version control documents.

It was important that the learners found the tool accessible, that it had a logical flow, but that they could go back to put in additional information if additional thoughts occurred to the learner as they became more immersed in the reflective process. To address this requirement the learner was asked to register, enabling them to log in and out of the system as they desired and build up their proposal in a timeframe they felt comfortable with. A workflow structure was introduced so that the learner was guided through the process and this worked particularly well as it clearly illustrated when each section was completed and what sections were left outstanding.

We noted that some learners, particularly those from a professional background, would have a CV or other background information that could be useful to support the initial estimation. We felt passionately that this should be

an encouraging and facilitative process that empowered the learners to enter an informed discussion with their tutor. The emphasis should therefore be on eliciting and shaping the information rather than process driven completion of a form. The inclusion of a CV was a vital addition to this as the information contained within it may identify key areas of previous learning that the learner themselves may not have identified as being relevant to their proposal. We also recognised that the amount of work required should not be onerous, as this was an information gathering exercise for the learner thus an hours worth of work should produce something meaningful to be submitted to a tutor for estimation. It was important for the tutors to recognise that the tools were merely a light touch scoping exercise for the learner and that this would hopefully then lead to enrolment and a more in depth discussion leading to a claim.

The key focus of the Estimator tool was to enable the learners to articulate their learning experiences by offering structured guidance so that it can be matched to the relevant higher education level indicator. This was identified by the highly experienced academic experts within the project team as one of the more difficult concepts for the learners to grasp, as the statements are de-contextualised and generic and for some impenetrable. In light of this the level indicator statements were re-written, simplifying the language used and where possible removing the academic terminology that led to ambiguities. The format of the tool was also structured to facilitate this process as much as possible for the learner by asking them to work through the statements first identifying their own level of competency, then matching their prior learning and finally submitting the justification for the selection. This allows the learner to build up the self reflective aspects of the process and enables them to broaden their scope by potentially identifying further prior learning. One of the key requirements of this tool was also that the level indicator statements could be replaced by any other levelled statements - such as National occupational standards, programme learning outcomes, professional criteria or other similar measures against which learners could match their learning experiences, ensuring that the tool could be used within other institutions and for other applications such as CPD. The project learning technologist ensured this would be possible by separating out the statements within the tool database, thus widening the potential use of the tool.

The Advisor Tool

The tutors identified that the main requirement for the Advisor tool would be the production of an output that should be something easy to review and comment upon, with sufficient detail to make a reasonable judgment about the scope and level of the experience. This would then enable the tutor to offer focussed and specific guidance to the learner on how to write the proposal and the nature of the required evidence in order to make a full claim. The APEL matrix was therefore used as the first screen the tutors see upon opening a proposal, as it offers a visual summarisation of the information inputted by the learner that can be expanded upon in more detail as required. The tutor was given the flexibility to evaluate the overall proposal or go deeper

and evaluate each piece of prior learning, and the use of pre-set evaluation criteria meant the that feedback to the learner would be consistent, promoting best practice amongst the tutors themselves.

By introducing a colour coded filer system the tutor could quickly review the site to see the status of claims so that reviewing the site need not be onerous - one click would enable the tutor to see if any submissions were outstanding and whether there had been a response from the learners. We needed this to be a clear and visual representation of the learner claim to facilitate the estimation.

What are the challenges that we faced?

We found that although we had developed guidance materials to support learners to develop an APEL claim, this did not easily translate in to the tool. It worked well when supported by tutorial discussion, but did not work on its own- the language was too austere and formal. It did not encourage or facilitate. The first draft of the tool had a similar feel – it was written from an academic perspective rather than that of the learner. It was not supportive or encouraging, but relied on the tone similar to that of the regulatory materials that we had previously criticised. We had focussed too much on what we as academics had wanted the learners to produce rather than what the learners needed to know to enable them to understand the process. This is where the contribution of all members of the project team was crucial to the development of the tool as it allowed the input of those distanced from the process itself to highlight key flaws such as the language and complexity, which would have acted as a potential barrier to the learner if not corrected.

Rewriting the level indicators to be meaningful both to the learners and to the tutors to enable a judgement about academic level to be made was a major challenge. We needed to enable the learners to select the most appropriate level indicator, without bias so that a realistic estimate of the experience can be made. However the language needed to be suitably generic so that it did not lean towards a particular context or subject. This was difficult as we recognised that learners found this process easier if they could identify with particular actions or experiences by giving examples.

We wanted to make this process of matching experience to level indicators more interesting and interactive. We contemplated the use of a shopping basket to represent the learning experience and that the learners would select from a list of level statements to match those that best reflected their experience, but we simply asked the learners to think about how their experience reflected against a series of short statements which once selected, revealed the longer statement for the learners to clarify and check their thinking and association. Again deriving short, decontextualised yet meaningful statements that were suitable to discriminate between academic levels.

Where do we go from here?

The e-APEL project allowed a working version one of the tools to be developed that was subsequently piloted on a small scale, and resulted in a proof of concept that the initial stages of the APEL process can be automated. The continuing need for the crucial role of the academic in offering tutor-claimant dialogue at the formal claim stage is recognised, however, the resource intensive pre-entry guidance stage has been successfully automated. This is beneficial to the practitioners in freeing time to concentrate on offering support at the claim stage and also enhances the quality of the information that the potential claimant brings to the initial discussion. This in turn makes the first discussion more effective, enhancing the experience for both. This is reflected in the students increased knowledge and understanding of key academic terminology, promoting confidence in their first tutor discussion and reducing potential perceived barriers. The next step for the tools development is to build more functionality into the tools for both the learners and the tutors including a data import / export and a print function. This version two is currently in development within the Innovation for Learning department at the University of Derby. As the JISC project has now drawn to a close, the original tools source code is freely available for download from Source Forge at https://sourceforge.net/projects/e-apel/

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