“Crafting Assessment in Vocational Teacher Education”

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“...the knowledge craftsmen possess is tacit knowledge – people know how to do something but they cannot put what they know into words.” (Richard Sennett, 2008, pg. 94)

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Work in progress
Crafting assessment in vocational teacher education

"The construction industry certainly uses the purest form of competence-based assessment because when you start work at eight o'clock in the morning you've either still got the job at 12 o'clock or you're off-site. 'I'm a carpenter', 'Right-oh, do that... you can't do that? On your way,' That is straightforward assessment, and very few prisoners are taken."

Teachers require formal and systematic thinking and writing skills in order to fulfil their roles and responsibilities as professional educators. Vocational specialists who enter the teaching profession often find the process of developing these skills excruciatingly difficult. This is not necessarily because they fail to think in a critical or analytical way, they are generally high and experienced performers in their vocational profession and have chosen teaching because their values drive them to share their skills. The barrier they often face lies in the fact that many, maybe most, have previous formal educational experience which ended with poor school histories and college experiences which did not accentuate writing and reflection.

This study explores methods of capturing critical and reflective thinking and ideas which build the skills of vocational teachers and mentors in capturing and expressing their reflective practice. Two techniques were considered, the PowerPoint poster and the recorded professional discussion. Each is a method used to encourage the vocational practitioner to express deeper thinking and critical reflections and capture them for communication and assessment. In addition, e-Learning technologies are considered as vehicles for the sharing of knowledge and understanding with professional communities of practice.

The training and assessment of vocational teachers has been dogged by the challenge of academic thinking and writing. Highly motivated and able vocational practitioners are recruited to further education because they have specialist knowledge, skills, experience and a great deal to share in preparing the next generation for employment. Because of the skills shortage in further education they are often recruited straight from the kitchen, the salon or the building site. Their induction to teaching is swift and sometimes brutal. Experienced at learning on the job they set about their new challenges with a mixture of enthusiasm and trepidation.

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1 John Stagg, Head of Construction, Lewisham College, LONCETT Work-Based Learning Seminar, November 2007.
Sometimes they are supported by able and experienced mentors who guide and coach them through their early experience in a new profession. Sometimes not.

One of the first challenges is Initial Teacher Training (ITT). Vocational practitioners will be used to presenting evidence of their work in practical form, but as new teachers they may not have expressed their thoughts and ideas in writing for years. They may be used to reflecting critically on their learning and understanding in a number of ways but, writing may be frightening and a significant barrier. The resulting quality can be poor showing surface understanding but no in-depth reflection. Often vocational teachers start the job without level 2 qualifications in literacy and numeracy. Either they never completed or they gained CSEs at grade 2 or below. The fear they have for writing often dates back to their experiences of school, the source and main reason for their becoming vocational practitioners.

Teachers must write. The purpose of this study is to explore ways in which new vocational teachers can use their resources and resourcefulness to build their confidence and skills in communicating their reflective thoughts and ideas in a range of ways, including writing. The Skills Commission (2010) report to Parliament calls for more research into vocational pedagogy and curriculum development. With the introduction of e-learning, new opportunities present themselves, employing increasingly versatile, familiar and popular communication techniques. The advent of My Space and Facebook as social networking sites offered teachers and learners the opportunity to explore and use these freely available resources to develop new and perhaps oblique skills that support and develop the essential communication skills that a teacher requires.

Lewisham College, like all other Further Education ITT providers, began recruiting mentors to support in-service trainee teachers some four years ago, following the 2003 Ofsted report which was so critical of the provision. Subsequently the College, in collaboration with London South Bank University and supported by the Edge Foundation, designed and validated a vocational in-service Certificate and Diploma in Teaching in the Lifelong Learning Sector. The aim was to recognise in-service ITT as work-based learning and provide on-the-job training and assessment for new vocational teachers which recognised their professional antecedents and the

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procedures and processes with which they were familiar, in order to train them and bring them less erratically into the profession of lifelong learning. The model is that of an apprenticeship. Central to the professional learning is the mentor. Apprentice teachers bring with them a body of life experience and vocational skills which they set about transferring, translating, adapting and developing into the skills required by contemporary teachers in FE.

**Assessment**

"The assessment culture within which higher education systems currently work tends to reward successful learning with credit, and to equate not-yet-successful learning with failure. …giving students critical feedback when things go wrong, and precious little comment when things go right.” (Race, 2001, pg 32).

The challenge in vocational education and training is to make assessment both accessible and accurate.

An important assessment strategy in the development of vocational teachers is the formation and development of skills in reflection-in-practice and reflection-on-practice (Schön, 1983) founded on the accumulation of experience and knowledge. Much of the knowledge base of a skilled and experienced practitioner is tacit and is built around long established ways of working and thinking. To enable a practitioner to analyse and critically reflect on his or her practice is often difficult, particularly if experience and confidence in writing is absent. NVQ assessment makes up for this with well established procedures including observation and the professional discussion. The former is a well established assessment tool in ITT. The professional discussion is less familiar as a formal tool. Unwin, et. al. (2008) described its use in a survey of competence based assessment in the motor industry thus:

“the ‘professional discussion’, was needed to draw out the extent of the associates' knowledge… The professional discussion was recorded onto CD and associates received a copy to put in their portfolios. As an artefact, the CD is the means to capture the outcome of the discussion that enables the worker to make explicit their tacit knowledge and, importantly, stands as a public record of the formal process of competence assessment.” (Unwin, et. al. 2008, pg. 14).

Habeshaw, et. al. (1993) describe the viva, a familiar assessment method in academic education, in similar terms,

"the further assessment of work previously submitted (e.g. a dissertation, design, a recording of musical performance) in order to check that the
candidate is the author of the submitted work, to explore particular questions in more depth and to explore understanding further by raising new questions.” (1993 pg. 75).

Unwin, et. al. went on to report on the popularity of the professional discussion,

“the majority felt that they had reminded themselves of how much they knew and that this was empowering” (2008, pg. 15).

Introducing new and diverse forms of assessment is not plain sailing, as Unwin, et. al. (2008) note. There is sometimes resistance, often due to insecurity and a lack of readiness to experiment and explore alternatives to the familiar, the tried and tested means of assessment, even thought it might be uncomfortable. Most vocational trainee teachers and mentors will insist on submitting their work in essay form, even thought they are critical of this method and would claim that it does not capture much of what they know and are able to demonstrate.

In recent years there has been a great deal of enthusiasm for offering trainees the opportunity to keep diaries or journals as a means of scaffolding skills in expressive and analytical writing. This has sometimes been extended by giving the opportunity to represent the writing in the form of a blog. However few will take this up unless they are familiar with and confident in using blogs and sharing knowledge publicly.

A problem with introducing new forms of assessment without simultaneously introducing new forms of learning is that the learners will find it hard to transfer from the one to the other. If new forms of learning are introduced with new forms of assessment, then it is possible that new “learning territories” (Fuller and Unwin, 2004) might be explored with greater enthusiasm.

During the 1980s, there was a steady shift from norm referenced to criterion referenced assessment giving vocational educators the opportunity to recognise experiential achievement and areas for development (Ecclestone, 1996). The validity of criterion referenced assessment was challenged in a world dominated by academic exam and essay writing culture. Ecclestone (1996, pg. 23) identified four important features of valid assessments, which might be phrased as the following questions:

- Can the learner apply the specified skills or knowledge in another situation in the future?
- Can the assessor reach similar performance judgements and interpretations to other assessors under similar conditions?
Can the purpose, scope and methods of assessment clearly ‘match’ the type of learning outcome being assessed?

Can a range of appropriate methods for the measurement of different skills, wider skills, knowledge and attitudes be developed?

Ecclestone quotes Gipps (1995) who emphasises the importance of teachers’ professional engagement with assessment,

"any assessment model, policy or program will only be as good as the teachers who use it: devalue the role of teachers and de-professionalise their training and no assessment technology will replace their skill. It is teachers who teach the concepts and skills, prepare [students] for the assessment, feedback... and move learners in the right direction. To limit the role of teachers in assessment would be the ultimate misconstrual of the process of teaching and learning". (Ecclestone, 1996, pg. 121).

Ecclestone (2003) explores the tension between the constructivist and the positivist, criterion-referenced, models of assessment. The former, espoused by, for example Lave and Wenger (1991) suggest that outcomes are not necessarily predictable and routes to learning vary from one candidate to another. The latter, on the other hand, proposes that it is possible to pin down and define knowledge and skills precisely and therefore measure them accurately through transparently agreed performance criteria. The positivist model is criticised for delivering surface learning and predictable outcomes, such that creativity and stretching, or in Fuller and Unwin’s (2006) phraseology, expansive learning opportunities, are reduced. One of the strongest arguments in favour of outcomes based assessment is that it is inclusive, offering clear standards and valid processes through carefully specified outcomes which identify knowledge and practical skills and open the door to conventional vocational assessment practices as in the workplace.

The relationship between formative and summative assessment becomes critical is teachers are required to revise and reconstruct their understanding and assumptions about assessment. A wider range of assessment opportunities needs to be considered including quality verification.

Ecclestone suggests that

"teachers have an internalised model of assessment which affects their assessment practice." (Ecclestone, 1996, pg. 123).

This is where much of the problem lies. Teacher trainers are most commonly educated in the humanities and quite often find competence-based and observation
based criterion referenced assessment quite challenging to undertake. Marking essays is generally more familiar and therefore considered to be straightforward. Marking or grading an observation, a video, PowerPoint poster or verbal presentation, is less familiar. The methodology and procedure for collecting valid and robust information to support the assessment is more complex.

Wolf (1993) cited by Ecclestone (1996, pg. 123) refers to the way in which A-level markers develop a ‘socialised’ culture of assessment through meetings where they discuss and agree professional judgements. This should be the case for all assessors, a means for challenging tendencies to compensate, where a student has underperformed even though their performance is usually high, that is, the halo effect. Teachers may be unaware of the level of their compensation producing tensions which Wolf (1993) cited by Ecclestone (1996 pg. 124) calls "justified interpretation" and "unjustified prejudice".

The investigation

Rigorous assessment design, finding opportunities for individualisation, innovation and integrating e-learning, presents a huge challenge to the teacher trainer who is trying to respond to the varied and diverse opportunities of the workplace.

The new Lewisham College – LSBU qualification, validated in line with the 2007 reforms, set out to authenticate assessment based on the real time activities of the apprentice teacher rather than simulated or notional activities. Assignments were designed in such a way that the submissions were all “collected” rather than generated. The critical feature, the fundamental learning, revolves around building skills in critical reflection that enable the apprentice teacher to make links and offer new insights into their new and growing practice as professional teachers. As one contributor to a LONCETT work based learning seminar put it,

“At first I was a painter and decorator but now I am a teacher who teaches painting and decorating”\(^3\).

Another contributor at the same seminar spoke of “the knowledge you do every day”. The transition from vocational specialist to professional teacher of that vocational specialism is based on the ability to reveal tacit knowledge and practice and in making it explicit, turn it into a series of learning sequences.

\(^3\) Bob Galvani, painting and decorating mentor, Hackney Community College, LONCETT Work-Based Learning Seminar, November 2007.
Two groups were formed, apprentice teachers undergoing the DTLLS programme and vocational subject mentors undergoing the mentor qualification, Certificate in Lifelong Learning (Vocational Subject Mentoring). The timing was such that it was going to be difficult to get data from the latter group, given that it commenced in November 2009 and the first assignments were only due at the end of February 2010. The former group, the main interest in terms of delivering diverse assessment evidence, was to be the main target for learning about the processes involved.

Equipment was purchased (flip cameras and digital audio recording devices) and opportunities were given to the apprentice teachers by the teacher trainers to engage in professional discussions and/or submit video evidence of their reflection-in-practice and reflection-on-practice. The new VLE-based on-line portfolio was also made available to the trainees for action planning and the preparation of and delivery of blogs and other “face book” like presentations. The idea was that the teacher trainers and the apprentice teachers would be trained to use the technology and then they would be able to submit their reflections in a range of ways other than in essay form. Training was given to the the teacher trainers who familiarised themselves with the technology and then they proceeded to conduct similar inductions for the apprentices.

Indicators of impact would ultimately be an embracing of the technology and improvement in the quality of in-depth reflections in practice using a variety of submission and assessment evidence mechanisms. It was expected that apprentice teachers and mentors would submit their evidence using the VLE, in the form of audio, video and PowerPoint posters and in addition, submit reflections on the practice in a range of ways. It was also expected that the teachers would be able to conduct professional discussions with the apprentice teachers either instead of or as supplements to written submissions.

As time went on, very little evidence was submitted, despite the training, coaching and guidance given to the apprentice teachers. When questioned about why this was the case, the response was generally that there were technical problems. Some video had been submitted accompanied by written reflections and one video/audio reflection was submitted. No professional discussions had taken place and been recorded. It was becoming evident that a crucial stage had been omitted from the investigative process.
Literature Review

The challenge is significant. Richard Sennett in his refreshing examination of how craftsmanship is passed on from one generation to the next noted that

“Inarticulate does not mean stupid; indeed, what we can say in words may be more limited than what we can do with things. Craftwork establishes a realm of skill and knowledge perhaps beyond human verbal capacities to explain; it taxes the powers of the most professional writer to describe precisely how to tie a slipknot”. (Sennett, 2008, pg. 95)

He goes on to suggest that a solution might be the substitution of images for text, describing how illustrations of the glassblowing process might be used to illuminate and simplify explanation into a series of “decisive moments” (ibid.). The vocational teacher’s skill lies in communication through visual and verbal articulation. How can this process be understood and developed so that there becomes a synergy between the apprentice teacher’s experience as a craft worker and that of a teacher of that craft?

“Embedding stands for a process essential to all skills, the conversion of information and practices into tacit knowledge. If a person had to think about each and every movement of waking up, she or he would take an hour to get out of bed. When we speak of doing something ‘instinctively’, we are often referring to behaviour we have so routinised that we don't have to think about it. In learning the skill, we develop a complicated repertoire of such procedures. In the highest stages of skill, there is a constant interplay between tacit knowledge and self-conscious awareness, the tacit knowledge serving as an anchor, the explicit unawareness serving as critique and corrective.” (Sennett, 2008, pg 50)

Embedded knowledge, tacit knowledge, endangered by the threat of mediocrity, needs to be exposed to rational analysis. However in this process the very knowledge that cannot be written down is in danger of being lost. It is therefore the quality of reflection and self-awareness that protects the highest standards associated with on-the-job learning and trying to do better (Sennett, 2008, pg 51).

Sennett identifies three areas that cause trouble for modern craftsmanship (Sennett, 2008, pg 52). Conflict between notions of competition and collaboration is one area. Institutions which place themselves against each other fail to energise motivation particularly in the application of technology. Motivation is greatest where competition is friendly. Modern technology can undermine the development of skill as a trained practice; repetitive, concrete, hands-on training may be replaced by simple computer aided activity which disconnects the social, cognitive and the physical. Measures of
quality which focus on correctness versus practical experience which draws on tacit knowledge, may be undermined by absolute measures which do not get to the heart of the learning and skills. This is a debate which is picked up later, because the discourse of technology can lead to red herrings.

Sennett quotes Pierre Bourdieu who argued that

"The rhetoric of quality serves people within organisations, as in ethnic groups, as a tool for claiming status: I/we are more motivated, driven harder, more aspirational than the others. The badge of distinction can lead towards increasing social isolation and disconnection as well as to claims of superiority." (Sennett, 2008, pg 254)

Here we see him drawing attention to the difference between individualism and collective or collaborative practice. The integrationist as opposed to the exclusivist stance becomes a repetitive theme. What he is talking about here is the development of an inclusion or inclusive as opposed to exclusive or isolationist approach. Sennett talks about the social side of expertise the overall context being very significant in the application of specifics. The doctor looks ahead to the likelihood of the patient surviving, not back at how far they have come. This involves looking at many more factors than simply the data. The Stradivari Syndrome, as Sennett calls it, is the belief that one cannot pass on tacit knowledge. If this is the case then the skills diminish.

The central question and methodology of this study shifted as it progressed and this was because some of the assumptions made early on required reconceptualising and reconfiguring in line with discoveries. It was assumed that the principle of offering new teachers a suite of alternative methods of assessment which included audio recording, video recording, various forms of diary or blogs, and professional discussions would be attractive, given that they offered an alternative to written reports and reflections. The teaching staff were encouraged to go on training events linked to Moodle, the newly introduced VLE and were also given training in using the professional discussion format familiar to NVQ trainers and assessors. Two parallel groups were introduced to these methods, the apprentice teachers and a small group of trainee mentors undertaking a new mentoring qualification recently introduced.

The apprentice teachers come from a range of vocational professions including beauty, construction, sport, catering, early years, health and social care, teaching
assistants, creative industries, business administration and computing. In addition there were apprentice teachers who teach Functional Skills. The teacher trainers come from backgrounds in the humanities and languages. Critical catalysts would be subject mentors who had a sense of the vocational contexts of the apprentice teachers and the skills in helping and enabling them to articulate and develop their communication of the knowledge and experience.

Critical to the developing ideas and methods of assessment is an understanding of how new teachers learn their craft. Lave and Wenger (1991), in their famous study of apprenticeships in different parts of the world and in different occupational contexts, and Wenger (1998) in his proposal of a “historical cultural” theory of learning, introduced the concept of communities of practice as the many loci of learning, professional and social, formal and informal. Lave and Wenger examined the different ways in which craft skills were passed on to “novices” by experts, “masters”.

"Learners inevitably participate in communities of practitioners and that the mastery of knowledge and skill requires newcomers to move towards full participation in socio-cultural practices of a community" (Lave and Wenger, 1991, pg. 29).

They explained how an apprentice might move steadily from the periphery towards the centre.

"Any ‘power of abstraction’ is thoroughly situated, in the lives of persons and in the culture that makes it possible. On the other hand, the world carries its own structure so that specificity always implies generality (and in this sense generality is not to be assimilated to abstractedness): that is why stories can be so powerful in conveying ideas, often more so than an articulation of the idea itself." Lave and Wenger (1991, pg. 34).

Situated learning is not just learning that it is in some kind of place or time. It is a social learning idea which suggests that learning takes place in a range of contexts and environments and that a key principle is the references that are made to real life events and processes. It is not an acquisition of knowledge model that is linear but it is a social idea, multidimensional in character. It suggests that learning is active and referenced in a large number of ways, both linguistic and practical.

A further point about situated learning is that it is communal; it is learned in communities. It is a dimension of normal social practice. There are people involved in it. It is not an independent and abstract process. It is holistic, involving the whole
person. There is an element of give and take and it is built around problem-solving. Thus culture is a significant factor in that it can influence and vary learning.

Fuller and Unwin (2004 and 2006) embrace the critique of attainment models of learning developed by Lave and Wenger but they are in turn critical of the apparent overemphasis of informal and legitimate peripheral participation at the expense of “off-the-job” formal learning environments. The relationship between learning on the job and organisational improvement is poorly understood and generally quite casual. Learning on the job offers workers the opportunity to participate in a range of communities of practice within and external to the workplace. (2004, pg. 126).

Fuller and Unwin suggest that careful attention to work design and jobs can enhance the learning, particularly if it is embedded in formal knowledge based learning opportunities. They conclude that

“expansive rather than restrictive environments foster learning at work and the integration of personal and organisational development” (Fuller and Unwin, 2004, p127)

They acknowledge the significance of the “learning biographies” of individuals in terms of motivation, factors such as personal learning histories, attitudes and ambitions. These they refer to as “learning territories”.

They suggest that the organisations within which individuals work may develop restrictive approaches on practices which effectively limit the opportunities for individuals to learn beyond the narrow scope of their jobs.

The expansive – restrictive continuum concept developed by Fuller and Unwin (2004 and 2006) becomes a powerful tool for the examination and evaluation of the work based learning experiences of new vocational teachers in relation to their formal experiences on DTLLS courses and their working experiences alongside and supported by subject mentors. Drawing on the work done by Engeström (1994, 2001) on expansive learning environments, Fuller and Unwin (2004) considered apprenticeships as a model and practical opportunity to evaluate learning in the workplace.

The key questions they raise demand a detailed examination of the whole organisation’s approach to learning in the workplace rather than merely the singular learning opportunities provided in order to gain appropriate qualifications. In this
sense, different schools or departments within a learning organisation may offer different opportunities for expansion or restricted learning by individuals.

An expansive approach to work force development includes the integration of mentors as teacher trainers, linked to the curriculum and with a good understanding of the standards required in the work place and methods for helping the apprentice improve. This means an understanding of the relationship between the off-the-job qualifications and learning and the on-the-job experience and opportunities to collect and reflect on evidence. This also begins to define their role in supporting and driving improvement.

Fielding, et. al. (2005) have made a significant contribution to our understanding of how we develop new practice. Their findings suggest that common assumptions about the transfer of good practice need to be reviewed. They tackled the idea that the transfer of good practice is a one-way process where there are givers and receivers. What they discovered was that “knowledge transfer” or “practice transfer” is highly problematic and a preferable approach to the development of good practice will come from collaboration between practitioners, enabled to develop new forms and practices through their combined experience and understanding (pg. 72). They consider “practice to be transferred” to be a range of opportunities: additions to a teacher's repertoire, new ideas, skills or activities or resources (pg. 56). They found that sometimes considerable hope was placed in new technologies to deliver transformations in practice. This was not necessarily borne out in practice because participants found that the face-to-face experience of working together more attractive (pg. 39). A key finding, relevant to this study is the following:

“Perhaps the most important single aspect of the transfer process from the partner standpoint is that both parties should be mutually engaged for a significant period of time and that the process should be, if not learner-led then ‘learner-engaged’… Practice transfer is more likely to be successful when the recipient of the practice has been involved from the beginning in the process of agreeing and planning the transfer activity.” Fielding, et. al. (2005, pg. 78).

Engeström (2008) refers to what he calls “knot working” where members of organisations who do not necessarily come from the same professional disciplines and working groups come together to work through problems and create ideas which cross boundaries.
In the context of this study, it is useful to consider some of their findings. The proposal to develop diverse methods of assessment arose from the perceived needs and assumptions about the needs of apprentice teacher who find writing essay-style submissions challenging and the sense that such submissions do not fully represent their knowledge and reflective skills. The NVQ model of assessment, although presenting a number of shortcomings in the way it addresses knowledge (Unwin, et. al. 2008) assessment, however offers methodologies which can be useful and supportive within an expansive learning environment.

Computer technologies and e-learning software have offered opportunities to engage new and different approaches to the presentation and sharing of “good practice”. Prensky (2001) in his inspiring and visionary discussion of digital natives and digital immigrants identifies the technological divide which can and potentially will result in a cultural divide. The new generation of younger teachers will be familiar with Web 2.0 and other social networking technologies and be able to use them effectively in managing their social communication. A problem, though, is that many vocational teachers, mentors and teacher trainers are nearing the end of their professional working lives and don’t have the same ease and familiarity with these technologies, not consistently anyway. Some are “natives” ready and able to communicate within the new modalities and some remain “immigrants”, struggling with the technology and pedagogical potentialities. Sims (1997) warned that interactive technologies might not fully replace virtual learning environments, particularly if assumptions are made that technologies simply replace conventional instructional methods like for like. Web 2.0 and now the Web 3.0 technologies take a more holistic approach and point to new ways of learning in collaboration with new ways of teaching and assessing which may be blended as well as primarily on-line. However, Prensky’s warning remains. It is now easier than ever to record and store digital material which captures learning in a range of ways through video, audio and interactive technologies such as blogs and social networking sites. However teacher trainers and teacher training programmes are struggling to give voice to these opportunities. Grove, et. al. (2004) make it very clear that in order to embed technologies and the critical thinking that new teachers need to acquire, training, professional development and support for communities of practice need to be guided and “driven” systematically. Newhouse, et. al. (2007) in a study where pre-service teacher
trainees were introduced to video recording achieved, through a VLE-like on-line learning programme, significant support for critical reflective practice. A majority trainee teachers, once they had familiarised themselves with the system, regarded it as constructive and helpful. A further question raised by Prensky (2001) is pertinent to the growing cultural divide: does the new generation of “natives” think differently? It is suggested that changes in the neural patterns of the new generations of computer users do show differences in learning behaviour, attentions spans and the way in which cognitive processes are engaged. For this reason, the work of Black and Wiliam (1998, 2009) on formative assessment, metacognition and learning about learning is relevant. In the context of new vocational teachers the message is clear. They must be consulted and take more independent and self-directed control of their learning and assessment if they are to be more than appendages to the learning of future generations. The teacher trainers too, need to be able to engage with their apprentice teachers and connect with them in the workplace.

**Findings**

It became pretty clear as the project developed that there were some crucial elements of the investigation which needed revision and reassessing. We were not inventing a new and different way of working and assessing. Video has been used extensively in teacher training as part of the evidence and reflective practice process. Professional discussions are familiar to vocational teachers as a means of supplementary assessment and presentation of evidence. VLEs have been used for some time in the presentation of digital evidence and there has been discussion for several years of the opportunities for using Web 2.0 and later technologies in the delivery and assessment of learning. However there are some significant barriers that still need to be addressed which go beyond the skills and confidence of the users. Franklin and van Harmelen (2007) draw attention to some of the unresolved prerequisites for the technologies to be used freely in the presentation of academic thinking and reflection. The very nature of the technology built around virtual communities of practice will raise questions about the rigour and validity of the conclusions. Hence there is more work to be done in building systems for archiving and validating the evidence presented in such “open community” fora such as blogs, wikis and other social networking formats (Franklin and van Harmelen, 2007, pg. 16). The general lesson learned is that take up is slow. If this is the case then the
expectations of this project, that there would be wide use of varied and alternative assessment opportunities, were mistaken. The evidence seems to suggest that there will be a slow but steady move in the direction of a wider selection of assessment if the ground work and scaffolding for such assessment is consolidated.

The Process

Fuller and Unwin (2004, 2006) introduced the notion of “expansive” as opposed to “restrictive” environments to help us to understand how communities of practice can form within, or become linked to, progressive workplaces (expansive) to enhance professional or occupational learning. Within such a discourse, it is suggested that the “off-the-job” learning environments provided by teacher training and mentor training programmes provide expansive learning opportunities for apprentices to elaborate and make explicit, their tacit knowledge and skills. In the meeting place of formal education there may be a number of barriers which need to be addressed which will help to progress and amplify the workplace knowledge and experience. For example, the familiarity of humanities educated teacher trainers with the vocational workplaces and the opportunities it offers for varied assessments might be the first challenge to tackle. During the course of this project a teacher trainer joined the team who previously had worked as a vocational trainer and assessor in a vocational area. When she joined the team she began to identify a range of new ways in which evidence could be gathered and assessed. She was able to advise in the reworking of assignments to enable apprentice teachers recognised the assessment opportunities. Previously, although the assignments were intended to offer wide ranging opportunities for submission of evidence, they had been written in such a way that the apprentices assumed that written submissions were the only option.

The technical training and confidence of teacher educators in using technology, the VLE and e-portfolios, is a factor that had to be taken into consideration. It is new technology and therefore the opportunities offered are not tried and tested. This should not be a barrier because much of it is intuitive and designed in such a way that those with the confidence and experience can use it without formal training. However the pedagogy needs to be developed. Teacher trainers who are familiar with the principles of blended learning and experienced with the practice will motivate and justify the assessment opportunities embedded within the e-learning
technologies. This in turn will encourage the apprentice teachers to explore the technology. If there is an experimental, “try-it-and-see”, approach to the assessment - where the apprentice teachers feel that they will not be penalised for “not getting it right”, then again things might speed up.

With regard to the professional discussion, confidence will come with experimentation and experience.

Coffield and Borrill (1983) in their dramatic exploration of youth work relationships revealed how new ideas and questions might emerge when an investigation does not go quite according to plan. They transformed their disappointment into a new opportunity by re-examining the questions they were asking, and the interventions they had used. The resulting analysis offered new insights into the methodology and approach to such research.

We also changed our tack. Having made little headway with the trainee teachers, we focused attention on the trainee mentors. We had found during the early stages of the course that they also had difficulty with written work which offered more than descriptive and explanatory reflections on their practice. This was a little surprising since they had been chosen for this training on the basis of their advanced performance as vocational teachers. They were presented with a list of submission options which included the opportunity to present PowerPoint posters and undertake professional discussions with peers or with their tutors. These would be evidence submitted as part of an investigation into their own practice as teachers. Several took up the offer, designing and presenting reviews, explanations and analyses in visual form. Professional discussions were also organised, to give them the opportunity to reveal and record deeper thinking and reflection. The procedure used was as follows:

Trainee mentors conducted an analysis of their teaching of a particular vocational procedure and their approach to professional self development. They made a presentation to their learning sets, using a PowerPoint poster as the blueprint. Several of the presentations were videoed. The posters were submitted for assessment. The assessor then devised a series of questions which were intended to provoke further and deeper reflective examination of the procedure and its outcomes. The questions were sent to the trainees and an appointment made for the
professional discussion. The discussion was structured as a formal assessment, the questions linked specifically to chosen learning outcomes and the responses recorded. The assessor explained to the trainee that the discussion would start with a “warm up” general question which was about what they had learned from the course so far. Then the prepared questions would be asked, with supplementary questions added to encourage dialogue and discussion. It was emphasised that the purpose was to explore further the ideas and reflective thoughts already presented, in order to underpin and strengthen the summative examination and ensure that it was captured as evidence.

Following the discussions, the trainee mentors were asked how they felt about the process.

F said,

“For me, I find it easier to speak than write, although I tend to write a lot to convey a very simple point. I probably tend to talk a lot as well but I feel easier talking about things, I feel I can get the point and the message across rather than write it. The thing about this particular session is whilst I’ve been talking I’m reflecting on what I’m saying as well and I’m thinking carefully about what it is we are actually involved in, in terms of education.”

Another, L, said,

“I don’t find I spend a lot of time reflecting because I think I do it constantly without realising and that is what moves me forward. If I look back on when I started teaching, I didn’t do a lot of moving forward quickly, because as a beauty therapist you don’t have to reflect on things that you have done right or wrong, because you have been taught in a certain way and you tend to follow it. Whereas with teaching its very much, for want of a better word, trial and error, if it works, go with it, if it doesn’t, change it, or tweak it or differentiate in some way from what you’ve done. So I think I do, its just difficult for me to unpick where I do it and how I do it. I do think its systematic because by nature, its me.”

A, a construction teacher,

“For me it is about being able to find a way of seeing, not someone telling me, but seeing it for myself, you know, doing it and then taping it and then look at it and analyse it and break it down.”

And B,

“Its given me the opportunity to open up, I don’t think I do in the classroom very much… its not my nature, I like to watch, absorb, reflect, have a good think, you know. I can be quite strongly opinionated, I have high values… I am a big thinker… there is a huge amount going on.”
The posters permitted the trainees to develop and evidence sequenced thinking through ordered reflection. The professional discussion continued this process, building on what good vocational specialists do well, verbal reflection. As the range of methods for capturing deeper reflective thinking are developed so the teachers, apprentices and mentors, will develop the confidence to write down what they think.

**Conclusion**

In final conclusion the following is recommended

- As work based opportunities for assessment are identified and offered to vocational apprentice teachers, appropriate scaffolding needs to be provided to build confidence and understanding of these opportunities.

- Teacher trainers need to form communities of practice with colleagues working in vocational areas of the organisation to work together to develop the opportunities for varied evidence to be submitted.

- As practice develops, the moderation and standardisation systems available to HE practitioners will build confidence in the validity of evidence and its usefulness in the learning and assessment processes.
References


