

# Appreciating the Power of Immersive Experience



January 9<sup>th</sup> and 10<sup>th</sup> 2008

**Surrey Centre for Excellence  
in Professional Training and Education  
University of Surrey, Guildford**

## Conference Programme and Supporting Papers

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### **SCEPTre Team**

Professor Norman Jackson	Director SCEPTre (facilitation)
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### **Conference Facilitation Team (including authors of supporting papers)**

Professor Norman Jackson	Director SCEPTre
Dr Jo Tait,	Assistant Director SCEPTre
Professor Michael Eraut	Distinguished Research Consultant SCEPTre Team
Richard Seel	New Paradigm Consulting & SCEPTre Associate
Dr Emilie Crapoulet	Postdoctoral Research Fellow, Department of Music, University of Surrey & SCEPTre Musician in Residence
Natacha Thomas	Law student (final year)
Corin Dourib	Recent sociology graduate
Anna Newell	Artistic Director Centre for Excellence in the Creative and Performing Arts, Queens University Belfast, N Ireland
Patrick Sanders	Freelance illustrator, graphic facilitator and SCEPTre Associate
<i>Distinguished visitor</i>	
Professor David Boud	Professor of Adult Education, University of Technology Sydney Australia

# Contents

	Page
Conference organising committee	1
Contents	2
Programme	3
<b>Preparatory Reading</b>	
The Power of Immersive Experience <i>Professor Norman Jackson, Director SCEPTRÉ</i>	5
<b>Scholar / researcher perspectives</b>	
Locating Immersive Experience in Experiential Learning <i>Professor David Boud, University of Technology Sydney</i>	9
Immersive Experiences at Work: Examples for Early Career Professionals <i>Professor Michael Eraut, Research Consultant SCEPTRÉ</i>	20
<b>Student perspectives</b>	
Just Being a Student <i>Natacha Thomas, University of Surrey</i>	42
My Work Placement Year <i>Corin Douiab, University of Surrey</i>	45
An Immersive Experience: Making a Classical Recording of Chopin's 4 <sup>th</sup> Ballade in F minor Op. 52 <i>Emilie Crapoulet</i>	46
The Performers View: Studio Silence <i>Emilie Crapoulet, University of Surrey</i>	53
<b>Educator perspective</b>	
Adventure Making <i>Anna Newell, University of Surrey</i>	55
<b>Collaborative enquiry</b>	
Introduction to Appreciative Inquiry and Open Space <i>Richard Seel New Paradigm Consulting and SCEPTRÉ Associate</i>	59

# Programme

*The process will be filmed and supported with a conference artist (Patrick Sanders) and the products will be made available through a wiki.*

## January 9<sup>th</sup> AC 01 Lecture Theatre

**13.00 Experiencing an experience – what does it feel like?**

*Anna Newell Queens University Belfast*

**13.20 The power of immersive experience**

*Professor Norman Jackson SCEPTRe University of Surrey*

**13.30 Locating immersion in the experience of learning**

*Professor David Baud, University of Technology Sydney*

**14.00 Appreciating our immersive experiences**

Find someone you don't know to share your own story of an immersive experience with and find somewhere to talk. Interview each other using the simple protocol provided and try to draw out your deeper understandings about the nature of immersive experiences and the effects of such experiences. Try to crystallise these understandings as propositions embedded in a poster for our 'appreciative enquiry wall'. Your poster can be in the form of words & statements, a poem or song, a cartoon or rich picture or any other form of representation. Put your poster on the wall at 4pm.

16.10 **Tea time** around our appreciative enquiry wall.

16.30 **Plenary discussion** aimed at sharing insights into the nature of immersive experiences and the learning that is derived from such experiences. A voting system will be used to develop and test views, questions and propositions.

*SCEPTRe Team to facilitate*

17.30 **Open Space Forum to grow conversational topics for discussion**

*Richard Seel & SCEPTRe Team to facilitate*

19.30 **Networking supper Wates House**

*Anna Newell will facilitate an immersive experience*

## January 10<sup>th</sup>

### **Conversational spaces for hosted discussions**

The conversational topics identified through the Open Space Forum will be discussed. Participants may choose to stay with a conversation or flit between conversations connecting ideas as they go. Key features of conversations will be recorded by the host and useful information will be posted on the wiki as part of our collaborative knowledge building enterprise.

*A timetable of conversations and rooms will be available at the SCEPTRe reception desk from 07.30.*

**08.00 Conversation space 1**

- 09.00**    **Conversation space 2**
- 10.00**    **Conversation space 3**
- 11.00**    **Tea and coffee**
- 11.30**    **Conversation space 4**
- 12.30**    **Lunch**
- 13.30**    **Sharing what we have learnt AC01 Lecture Theatre**  
An opportunity to share ideas and perspectives from the morning sessions.
- 14.45**    **Immersive experiences – a continuing appreciative enquiry?**  
*Professor Norman Jackson & Dr Glynnis Cousins Higher Education Academy*  
How might we continue to enquire appreciatively into the themes we have identified as being worthy of enquiry?
- 15.15**    **Evaluation of process**  
*Dr Jo Tait SCEPTRe*
- 15.30**    **Finish**

Some thoughts on:



## **The Power of Immersive Experience**

*Professor Norman Jackson, SCEPTRe, University of Surrey*

Norman has had a long standing interest in the role of higher education in promoting creative as well as intellectual development. The current work of SCEPTRe is focused on expanding opportunities for experience-based learning to enhance the undergraduate experience and better prepare students for 'learning in a complex world'. The immersive experience conference provides an opportunity for collaborative enquiry into some under-explored learning territory and for sharing and building new knowledge to inform the design of learning experiences.

### **Immersion – an idea worthy of exploration**

Preparing our students for a lifetime of working, learning and living in uncertain and unpredictable worlds that have yet to be revealed is perhaps one of the greatest responsibilities and challenges confronting universities all over the world. We live in a world where change is exponential and we are trying to tackle the 'wicked problem' of preparing students for jobs that don't yet exist, using technologies that have not yet been invented, in order to solve problems that we don't know are problems yet.

The way they will achieve this is through their lived experiences. They will create their own pathways into the future and engage with the problems they encounter or opportunities they create, using technologies that are available through the experiences they co-create with others. All higher education can do is help people gain the confidence to engage with the unknown, appreciate that knowledge already exists and develop their capability and social skills to find what they need to know and the confidence, imagination and capability to turn their knowledge into productive action.

*Experiences* involve us in being in situations and thinking about our involvement in these situations. They require us to see and comprehend objects, thoughts, or emotions through the senses or mind. They have the potential to change us – through the experience we come to know about and to know how, or who, or when or whatever. *All learning is experiential* but some experiential contexts are more challenging and are richer in their potential to engage people in ways that change them. Knowing what sorts of experiences create good opportunities for learning, and preparing students so that they can exploit their potential is the continual challenge for all teachers. This conference is focusing on a particular category of experience we are calling *immersive experience*.

*Immersion* is a metaphorical term derived from the physical and emotional experience of being submerged in water. The expression, '*being immersed in*', is often used to describe a state of being which can have both negative consequences – being overwhelmed, engulfed, submerged or stretched, and positive consequences – being deeply absorbed or engaged in a situation or problem that results in mastery of a complex and demanding situation. *Being immersed in* a challenging experience might be very uncomfortable but it is particularly favourable for the development of insights, confidence and capabilities for learning to live and work with complexity: a central theme of SCEPTRe's pedagogic work.

The concept of immersive experience is well known in the world of virtual gaming. In a grounded investigation of immersion in gaming Brown and Cairns<sup>1</sup> recognise immersion as 'an important experience of interaction' and a term that is used to describe 'the degree of involvement with a game'. Three levels of involvement were identified – engagement; engrossment and total immersion and gamers progression through the sequence is determined by the complexity, challenge and quality of the experience. To enter the immersion sequence gamers must invest considerable time, effort and attention. Total immersion involves participants becoming so engrossed that the game is all that matters.

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<sup>1</sup> Brown E and Cairns P (2004) A Grounded Investigation of Game Immersion  
[http://complexworld.pbwiki.com/f/Brown+and+Cairns+\(2004\).pdf](http://complexworld.pbwiki.com/f/Brown+and+Cairns+(2004).pdf)

Attention is an important part of immersion and the level of immersion felt by gamers seems to correlate with the number of sources of attention needed as well as the amount of each attention type necessary to cope with the situation. Intense engagement often leads to heightened sense of awareness and acts of embodiment. It is in these situations that we need to draw on both our intellectual and our creative resources and this is where we might usefully explore possible links with Mihayli Czentmihayli's<sup>2</sup> concept of 'Flow'.

Because of these intriguing and educationally important dimensions to the idea of immersive experience, we believe that the concept is worthy of exploration. Through collaborative enquiry we might test whether the sorts of features identified in the virtual gaming world are also important in real life immersive situations and educationally constructed experiences.

### **Personal experiences**

Of course life itself is one long immersive experience but we are interested in a number of phenomenon that quantitatively and qualitatively influences the character of immersion. The first relates to the degree to which we make our lives immersive through our own dispositions and the things we do. I'm sure we all know people who seem to have boundless energy for adding new things to their already busy lives. They are naturally inquisitive and they make their lives more intensive and seem to engage energetically with all aspects of it. Through this they create a heightened sense of immersion. The second phenomenon relates to the emergent nature of life itself. Perhaps something suddenly happens in our lives like the arrival of a new baby, the loss of a job or a loved one, divorce or remarriage that immerses us in life in a different way.

Life is the grand scale of immersive experience and Natacha Thomas describes this scale of immersion in her essay on 'just being a student'. But immersive experiences happen at all scales and we can see within different areas of our lives like family, work, study, play and travel experiences that are themselves immersive in their own right. This is the scale at which educators might usefully focus their attention.

For example, I remember the moment I tried to teach myself to surf in Cornwall running down the beach with a borrowed surfboard and throwing myself into 6' storm surf and then feeling I was in a washing machine as I was dumped time and again into the surging foam, feeling totally out of control and overwhelmed, and at times fearful I would never bob to the surface. Fortunately, I survived to tell the tale and, through many more experiences of watching other surfers and trying to emulate them, I eventually learnt to surf. So what sorts of things did I gain from that uncomfortable and stressful immersive experience? I guess there must have been something about making a decision to engage in a significant risk and persisting in a stressful and challenging situation even though I could have got out and walked away. Learning to surf is not something you can do by reading about it: you have to immerse yourself in the experience of trying to do it. It was not the best way to learn or the best situation to put myself into in order to learn, but the story illustrates the power of immersive experience to develop in an individual the will and confidence to learn.

Of course I chose to throw myself into the maelstrom but we often find ourselves in immersive experiences that circumstances have created for us. In 1990 I changed from being a Polytechnic geology teacher to becoming the HMI<sup>3</sup> for Geosciences in the Polytechnics and Colleges. This change was accomplished through the most challenging year of my professional life trying to cope on a daily basis with stressful, demanding situations the vast majority of which I was ill-equipped to deal with. I was supported through the best induction, mentoring and coaching experience I have ever encountered but most of my learning was from experiencing the role, trying to do the job and learn how to do it at the same time. I felt immersed in a world I did not know or understand but somehow I began to know what to do and how to do it and I gained the confidence to do it. At the end of my probationary year I knew that I was a very different person. Not only did I have the confidence to do that job but the idea of fundamentally changing a role and an identity did not intimidate me any more. And that is the power of immersive experience. Another important lesson I took from the

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<sup>2</sup> Czentmihayli, M. (1997) *Creativity: Flow and the Psychology of Discovery and Invention*, New York: Harper Collins

<sup>3</sup> Her Majesty's Inspector

experience was seeing how an individual in an immersive situation can be encouraged and supported through it. My sympathetic, skilful and experienced colleagues provided me with good role models, guidance on professional actions and generously shared their tacit knowledge through stories of their own experiences. They also provided me with a continuous stream of feedback on my own performance so that I could judge how I was doing. Michael Eraut's paper shows just how important these things are to enabling professionals in the early stages of their careers to master complex professional roles.

The third story I will use to illustrate my interest in the idea of immersive experience happened four years ago when I participated in a weekend residential course that aimed to help the 20 academics participating in the workshop to develop new creative facilitation skills. Over the two and half days we were exposed to four different techniques. We experienced being facilitated and then practiced facilitating ourselves in small problem solving groups. The intensive, highly social and emotional experience, engaged us as whole people and it had a profound effect on many of us. I gained feedback from several who felt that they had been transformed by both the intensity and richness of the experience. Over half the group committed to adapting some aspect of their teaching and joining an action learning network to create case studies describing their experiences which were eventually published in a booklet. Through this process I became convinced of the value of this type of immersive experience in the training of experienced professionals. Sadly, experiences such as these are few and far between and even when they are there we rarely find the time to engage with them.

These stories illustrate some of the important features of immersive experiences that lead to personal change and perhaps above all help us develop that most important disposition – the *will* to be and to be part of, the *will* to learn, the *will* to be open to new experiences and the *will* to explore the possibilities of the unknown (see Ron Barnett's<sup>4</sup> exposition on will).

### **Collaborative enquiry**

The idea of this conference is to bring together people who are interested in thinking about the sorts of intensive experiences that I have described in the context of higher education learning. By sharing our experiences in an appreciative way and pooling our knowledge we hope to deepen our understandings about the potential value of immersive experience in higher education.

In June 2007 Professor Joe Trimmer gave a keynote presentation at SCEPTRe's 'Facilitating Enquiry' conference. He talked about the work of the Centre for Creative Inquiry at Ball State University, and showed us how his university was redefining education by creating 'a high-tech--and high-touch--immersive learning environment that allows students to engage with learning in a new way: intense, creative, collaborative, personal, and, at times, in ways that mirror the risk and reward of real-life ventures'. Ball State University believes that by immersing students in rich and challenging experiences, learners achieve far more than a grade. Indeed, the primary concern becomes the process of learning. Something we have almost obliterated in our assessment driven education system.

When students are immersed in an experience they achieve deeper connections to their areas of study, they engage in meaning making, they develop deeper understandings of the relationships between their disciplines and others, gain insights into their career choices and can see more clearly where they want to go in life, and they develop stronger ties to the communities and industries in which they've worked.

The immersive experiences that the Centre for Creative Inquiry creates are semester-long and formed around an interdisciplinary group projects. Students come out of their programmes to participate in the experience. Each group is mentored by a teacher and most projects involve establishing relationships and partnerships with one or more communities outside the university. Importantly, each project culminates in a tangible end product or

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<sup>4</sup> Barnett, R. (2007) *A will to learn: being a student in an uncertain age*. McGraw Hill, Society for Research into Higher Education & Open University Press.



performance, such as a book, play, film, business plan, product prototype, or report that is presented publicly. This is what people work to not a grade.

While this educational model for immersive experience may be difficult to replicate in the UK, we are sure that there are many other ways of creating such experiences and our conference is intended to help us discover practices that already exist. Examples of immersive experiences in UK higher education might include: work placement, term-time employment, volunteering or social enterprise, entrepreneurial activity, certain types of intensive collaborative enquiries perhaps involving role play, some forms of simulation, field work, overseas exchange visits, independent projects, study tours, participation in 'assessment centres' and virtual worlds like 'second life', extra-curricular processes...and many more!

By creating conditions for appreciative enquiring conversations with a group of experienced, knowledgeable and interested people, we are sure that interesting and unexpected things will emerge. Our measure of success at the end of the process will be that participants believe that they have been able to immerse themselves in a learning enterprise that was worthwhile and useful. But we also hope that the energy and relationships that develop will result in commitment (a collective will) to continue to explore the proposition that the opportunity to participate in immersive experiences should be available to all higher education students.

## Some thoughts on:



### **Locating Immersive Experience in Experiential Learning**

*Professor David Boud, University of Technology Sydney*

David is Professor of Adult Education and Dean of the University Graduate School at UTS. He is a distinguished scholar and has contributed extensively to the literature on research and teaching in adult, higher and professional education. David has written extensively on experience-based learning and in this piece he helps us locate immersive experiences in experiential learning.

## **Introduction**

The aim of this paper is to sketch some ideas about immersive experience and its use in formal educational settings, and to examine these from the perspective of experiential or experience-based learning. It starts by considering what immersive experiences might be. It continues by summarising some of my own earlier work about learning from experience and applies a model of learning from experience to immersive situations. It warns about the trap of naïve experientialism and cautions about the uncritical application of experiential learning practices in formal educational contexts in which assumptions of volition and aware participation may not be valid. It continues with discussion of more recent work about learning in workplaces, which is nothing if not experiential, and ends with a proposal for an agenda for considering the use of immersive experiences in higher education contexts.

## **What are immersive experiences?**

Immersive experience is a somewhat paradoxical idea. It refers to situations in which learning occurs effectively and somewhat naturally, but it also describes a condition needed for any learning to occur. At one level we know that, for example, full immersion in a language culture is highly effective in learning the language and being able to communicate with speakers of that language. It aids language learning by placing it in a context and culture; it forces us to use the language to describe our needs because there is often no alternative. It enables us to adjust pronunciation and formulation of ideas to make ourselves understood and it enables us to use language in naturalistic ways similar to how we learned our first language, rather than from following formalised rules of grammar. But what constitutes immersion? Surely every act of learning requires immersion to some extent? All learning is necessarily from experience. When we learn trigonometry we immerse ourselves in the world of two dimensional objects, angles and distances. We suspend attention to other matters and enter the world of trigonometry as if there were no other. This then must also be immersive. Of course, it is. The label immersion then describes a condition of all learning.

It can be useful if we focus on what might not be an immersive experience as this can point to features we need to identify to characterise the condition. Experiences are not immersive if the learner is not fully engaged. That is, only a limited part of the attention of the learner is consumed. Examples of such situations are when students are doing exercises for the sake of completing a required learning task. They are partially involved, their emotions are not engaged—they are not energised or captured by the task—and they do not need to complete it to be satisfied or fulfilled.

Why then should we now be considering immersive experience as if it were an innovation in higher education that is worthy of focus? I suggest that we need to do so as a way of emphasising features of teaching and learning that have been overlooked in our current drive for efficiencies and systematisation of higher education. As we move to the highly accountable modularised course with tightly specified learning outcomes, a minimal set of learning activities and unambiguous assessment tasks, there is a danger that we lose sight of the processes needed for the learning of complex, high level capabilities that can be deployed in contexts beyond the end of the course.

Why should we be concerned about them for learning purposes? It should be clear from this that immersive experiences might be many and varied. They do not necessarily involve being placed in a 'real' situation or work practice. Immersion can occur in a classroom, though we do not often think that this is possible or may not create the circumstances to bring it about.

One way of conceptualising immersive experiences is through the lens of experiential learning as in many respects immersive experiences are simply a way of labelling the situations to which ideas about experiential learning have been taken to apply. That is, they could be experiences that substantially engage learners inside or outside the classroom, using pre-existing stimuli from what has gone before (e.g. reflective workshops), or involve establishing a new stimulus (e.g. simulations). Most commonly they involve students in some kind of work or community placement in which it is hoped new experiences will be generated from which students will learn in ways not contrived by educators, and thus be in some sense, more authentic.

We need to be wary of a naïve or reductive experientialism though. That is, a view that the more participative or the more immersive the activity, the better. We have all experienced situations in which we have been caught up in the action of a process to such an extent we have not been able to draw much from it. It might have provided a stimulus for learning, but we did not have the opportunity or occasion to benefit from it. We were so occupied with what we had to do that the potential of the situation for learning passed us by. This is the trap of immersive activities. The activities may be so interesting or so fully occupying that they no longer have the potential for further learning—we are simply employing what we already know and do. We may report that they are generally worthwhile, but we have difficulty saying in what ways they were beneficial. Learning within the context of a formal educational program necessarily requires some distance from an experience and some opportunity for processing and reframing to occur. If this cannot be provided, we may have the impression that we have benefiting the student, but we may not be able to demonstrate it to our satisfaction or theirs.

### **Some ideas from experience-based learning**

My preference is to use the term experience-based learning as experiential learning implies to me the possibility that there may be some kinds of learning that are not experiential. My view is that all learning needs to be seen as coming from experience. Sometimes an activity is highly contrived and may appear to be abstract and artificial, but learning can only occur through engagement with it. Experience-based learning though refers to situations in which learning activities are explicitly set up or chosen on the basis that they will directly engage substantially with the experience of the learner. That is, experience is constructed as the focus of the activity. As we have described before (Andresen, Boud and Cohen 1995 p 2007):

“... the distinguishing feature of experience-based learning is that the experience of the learner occupies central place in all considerations of teaching and learning. This experience may comprise earlier events in the life of the learner, current life events, or experiences arising from the learner's participation in activities implemented by teachers and facilitators.”

Experiential or experience-based learning typically refers to approaches that holistically include cognitive, affective and conative features. That is, they do not focus on intellectual and skill learning alone, but also emotional and volitional learning. A key feature of that class of educational activities that can be described as experience-based learning is that learners work with their experience by reflecting, evaluating and reconstructing that experience (sometimes individually, sometimes collectively, sometimes both) in order to draw meaning from it in the light of prior experience and other ideas and concepts that may be available to them. This review of their experience may then lead to further action that in turn generates further learning and so on.

Experience-based learning is based on a set of assumptions about learning from experience. Boud, Cohen & Walker (1993) have identified them as

- Experience is the foundation of, and the stimulus for, learning
- Learners actively construct their own experience
- Learning is a holistic process

- Learning is socially and culturally constructed, and,
  - Learning is influenced by the socio-emotional context in which it occurs.
- Whether or not teaching and learning activities are arranged in the forms that are commonly associated with experience-based learning, these considerations still apply.

### **Defining characteristics of experience-based learning**

It has been suggested (Andresen, Boud and Cohen 1995) that experience-based learning does not lend itself to being reduced to a set of strategies, methods, formulas or recipes. However, it is possible to identify features that characterise it and distinguish it from other approaches. The first three of these are probably applicable to *all* experience-based learning. The remaining three may or may not be present in any particular case.

The six features can be explained further thus:

1. Involvement of the whole person—intellect, feelings and senses. In learning through role-plays and simulations, for example, the process of playing or acting in these typically involves the intellect, some or other of the senses and a variety of feelings. Learning takes place through all of these forms of engagement.
2. Recognition and active use of all the learner's relevant life and learning experiences. Where new learning is related to personal experiences, the meaning thus derived is more likely to be integrated into the learner's values and understanding. Meaning making is an important part of the experience.
3. Continued reflection upon earlier experiences in order to add to and transform them into deeper understanding. It is the quality of reflective thought that the learner brings to any experience that is of greater significance to eventual learning outcomes than the nature of the experience itself. 'Learning is the process whereby knowledge is created through the transformation of experience.' (Kolb, 1984, 38)
4. Whether or not the activity that leads to learning has been intentionally contrived or is a naturalistic experience. Deliberately designed learning events are often referred to as 'structured' activities and include simulations, games, role-play, visualisations, focused group discussions, sociodrama and hypotheticals. However, most experience-based learning arises from unplanned and unstructured activities that take place all the time. Much learning also emerges through improvisation in response to unexpected situations that could not possibly be planned for.
5. Whether or not learners' engagement in an activity is facilitated or co-created by some other person or persons (teachers, work colleagues, etc.) and, if it is, the degree of skill with which that facilitation is carried out. Experience-based learning often assumes relatively equal relationships between facilitator/co-creators and learner, involves the possibility of negotiation, and gives the learner considerable control and autonomy.
6. Whether or not the outcomes of learning through experience are to be assessed and, if so, by what means, by whom, and for what purpose this assessment is to be carried out. Experience-based learning is often as much concerned with the process as the outcomes of learning, and assessment procedures should accord with this. Assessment tasks associated with experience-based learning include individual or group projects, critical essays located in the learner's own experience, reading logs, learning journals, negotiated learning contracts, peer assessment and self assessment. They might include a range of presentation modes other than writing, so as to enable the holism, context and complexity of the learning to be evidenced. However, the paradox of assessment should be recognized here. Assessment per se might inhibit the very learning that experiential activities seek to promote (Boud (2001). Assessment is an act of justifying learning achievements to others; it is not in itself an act of personal sense making.

## Essential criteria for experience-based learning

We should recognize that experience-based learning, of which immersive experience is an example, is not a mere 'method' or 'technique' or even a particular 'approach'; it is as wide and deep as education itself. Although there is no single way to identify the process of experience-based learning, there are some criteria to be fulfilled if teaching and learning activities are to be usefully labelled 'experience-based'.

The most important criterion we start with refers to the "ends" of education—its goals, its purposes, what it is trying to achieve.

- The ultimate goal of experience-based learning involves the learner's own appropriation of something that is to them personally significant or meaningful (sometimes spoken of in terms of the learning being "true to the lived experience of learners").

There are then a number of criteria that refer to the "means" of education—how we go about doing things to try to achieve those goals or ends.

- Experience-based learning has a primary focus on the nature of learner's personal experience and interpretation of phenomena (sometimes described as the learner being more-or-less directly in touch with the realities being studied).
- There is an assumption that the learner will be able to notice and respond to their experience while it is happening, retaining key information for later re-processing.
- Debriefing and reflective thought and the explicit articulation of what has been learned are employed as essential elements. (This incorporates a value stance, that experience alone is not necessarily educative).
- There is acknowledgment of the premise that learning invariably involves the whole person (senses and feelings as well as intellect; affect and conation as well as cognition); and that this is associated with a particular set of perceptions, awareness, sensibilities and values associated with this full range of attributes of the total, functioning, human being.
- Recognition of the importance of what learners bring to the learning process (informal or formal acknowledgement or recognition of prior learning).
- A particular ethical stance (involving features such as respect, validation, trust, openness and concern for the well-being of the learner) is adopted towards learners by those who are their teachers, trainers, leaders, facilitators or peers.

These criteria are probably *conjointly necessary* before an educational event becomes properly called an experiential learning activity.

## A model of learning from experience

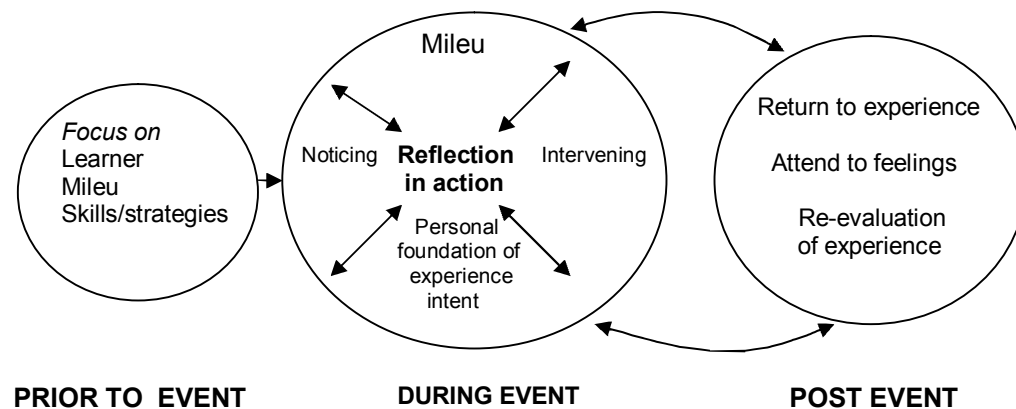
While I am not aware of any direct models of immersive experience, it may be useful to examine it from the perspective of a model of learning from experience I developed some time ago with David Walker (Boud and Walker 1990) and which built upon a model of reflection on learning (Boud, Keogh and Walker 1985). This conceptualizes the process of learning from complex activities in terms of three stages: what occurs prior to an event, what occurs during an immersive event and what takes place after the event. It distinguishes between an event—a public label for a set of activities—and experience of the event—the unique intersubjective representation of it. This model is of course but one pragmatic representation of important features and needs to be read in conjunction with subsequent developments about how we learn to be and develop identities in new situations.

The basic assumption of the model is that all learning builds on prior experience of a variety of kinds, and that any attempt to promote new learning must in some way take account of that experience. Learners bring with them to any event their *personal foundation of experience*. This is a way of describing the influence of all their previous experiences on them now. It is represented in the embodied life history that exists on every occasion that profoundly affect perceptions of what does and does not count as important, and what they are prepared to do. It acts to sensitise us to some features of our world and blind us to others. It shapes the *intent* that guides our priorities. Normally our personal foundation of experience is not readily

accessible and can only be inferred from our actions and our declared intent.

The second assumption of the model is that the process of learning from experience is necessarily an active one that involves learners in engaging with and intervening in the events of which they are part. This engagement and intervention is with what is termed the *learning milieu*—i.e. the social, psychological and material environment in which the learner is situated. While vicarious learning in which the learner appears to learn from the experience of others or appears to be passive, occurs, there still needs to be active engagement of the learners with the experience of others so that they can identify with and make the experience of others part of their own. There is also no clear demarcation between vicarious and experience-based learning: one merges imperceptibly into the other.

Figure 1. Model of learning from experience (after Boud and Walker 1990)



*Prior to the event* emphasis is on what preparation may be required to enhance the possibility of the event being one from which a given learner can learn fruitfully. There are at least three considerations to be taken into account:

*Focus on the learner.* What intent and specific goals does the learner bring to the event? What part of their personal foundation of experience of which they are aware may be engaged or provoked? What are his or her expectations of the event and its outcomes? What plans might the learner create for engaging with the event and their experience of it?

*Focus on the milieu.* Usually, much of the learning milieu in any event is given and cannot be altered. Emphasis here is on what is fixed and what can be changed? What does the learner need to know in advance about the culture and the practices of the event? What possibilities for interactions with people and materials are there available?

*Focus on learning skills and strategies.* The learner is often not equipped to make use of the opportunities that exist, so what physical, emotional or intellectual preparation will help the learner in the anticipated situation? What concepts and language of learning is needed to equip the person? What rehearsal may be needed to create and maximise opportunities for learning during the event? What observational or other sensing skills are necessary to be aware and to respond? What guides, heuristic devices or learning-to-learn strategies might be usefully learned and deployed? For example, what means of recording activities and reflection would work within the particular setting? Also, in what does a learner need practice before taking the plunge? For example, would it be training in negotiation with people they might meet, practice through role play of problematic encounters, or development of understanding of a particular sets of ideas or concepts that might illuminate what will be experienced?

*During the event* it is the learner's engagement with the milieu that constitutes a particular learning experience. Learners create a learning milieu through their presence and interaction with the situation. Through *noticing*, *intervening* and *reflection-in-action* they steer themselves

through the milieu in accordance with their intents and what is available for them in this process.

*Noticing* is an act of becoming aware of what is happening in and around one. It is directed towards both the interior and exterior worlds and involves attending to thoughts and feelings as well as the actions of others and material features. Noticing affects the extent to which the learner is involved in the process whether or not the learner might appear 'active' to others. Noticing is also important when it comes to making sense of the situation and ultimately provides a resource for deeper learning through reflection.

*Intervening* refers to any action taken by the learner within the learning situation affecting the learning milieu or the learner. Again, intervening may not be overt and noticeable to others, but is an act that brings about some change. The conscious decisions not to speak or to focus one's attention on interior rather than exterior dialogue can be forms of intervention just as much as a question or a physical act.

*Reflection-in-action* describes the process of working with noticing and intervening to interpret events and the effects of one's interventions. For much of the time these factors are invisible and unconscious and, in Schön's terms, they are part of the artistry of effective practice. However, in developing expertise of any kind it can often be helpful to become more deliberate and conscious of the process and be aware of decisions being made by one and others. It is through exposing these decisions to scrutiny that the assumptions behind them can be identified and a conscious decision taken to act from a new perspective.

*Following the event* important learning can occur as the distractions of the milieu and the lack of opportunity to stand aside from the dynamics of the action limit what it is possible to do at the time. Some aspects inevitably take time and the ability to view particular events in a wider context. Reflection after the event has been discussed over many years, but the formulation of it in the model emphasises that it is not simply a process of thinking, as Dewey has been taken to suggest, but one which necessarily involves feelings and emotions. It has we have suggested three elements: *return to experience*, *attending to feelings* and *re-evaluation of experience*.

#### *Return to experience*

The base of all learning is the lived experience of the learner and to return to this and attempt to fully recapture it in context allows further reflection. Emphasis needs to be placed on what happened and how it was experienced at the time. Judgements about this are often made prematurely and possibilities for further learning can be obscured. Mentally revisiting and vividly portraying the focus experience can be an important first step. This element can be aided by also sharing descriptions of the different perceptions of others who were present, particularly those of peers as these are often more readily available and can be expressed with less concern about hierarchy.

#### *Attending to feelings*

As part of returning to the experience, learners focus on the feelings and emotions that were (and are still) present. These can inhibit or enhance the possibilities for further reflection and learning. Feelings experienced as negative may need to be discharged or sublimated otherwise they may continually colour all other perceptions and block understanding, while those experienced as positive can be celebrated as it is these which will enhance motivation and desire to pursue learning further.

#### *Re-evaluation of experience*

Re-acquaintance with the event and attending to the thoughts and feelings associated with it, prepares learners for further consideration of their experience. There are four aspects of the process of *re-evaluation* that may need to be considered by the learner. They are: *association*—relating new information to that which is already known; *integration*—seeking relationships between new and old information; *validation*—determining the authenticity for the learner of the ideas and feelings that have resulted; and *appropriation*—making knowledge one's own, a part of one's normal ways of operating. These aspects should not be thought of as stages, but parts of a whole.

While these reflective processes can be undertaken individually, this can easily lead to reinforcement rather than reappraisal of existing views and perceptions. Re-evaluation necessarily involves criticality as it involves re-appraising judgements that may have been made in the press of the moment. Working one-to-one or with a group for which learning is the *raison d'être* can begin to transform perspectives and challenge old patterns. Much learning is invisible or inaccessible to a person working in isolation. It is also through give and take with others that critical reflection can be promoted and awareness of alternative views and interpretations develop.

In summary, the model points to the importance of being open to experience and to prepare, where possible, so that the affordances of any activity are utilized. It stresses the significance of the intent and what the learner wishes to gain from the situation: the more they are in touch with this, the greater the likelihood that possibilities get realized. It draws attention to the need to be active in the midst of experience and to construct oneself as an active subject rather than just letting the passive object of events themselves. Finally, it points to the crucial role of reflection of various kinds as a key process in drawing meaning from experience. It deliberately takes its perspective of that of the learner and the agency of the learner in the process. In this perspective others are used to support and foster the reflection and meaning making of the learner. In its present formulation it accepts that learning is always socially constructed, but it chooses to highlight the action of one of the players as a heuristic device to enable learners to focus on important elements of learning from messy experience.

### **Application to immersive experience**

How might these ideas be applied to immersive experience? The first question to consider is what constitutes an event that might be the focus of an immersive experience and reflection. In an extended activity such as a placement, is it the entire experience or some aspect of it? The model can be applied either to parts of a large immersive activity or to the whole of it. For example, this might be a focus on a particular interaction on a particular day, or the totality of a four-week work assignment. In order to maximize learning both perspectives are necessary as they may emphasise different kinds of issues for different purposes. For example, this may involve focusing on the development of conflict management skills in a particular situation, on the one hand, or the nature of particular kinds of work, on the other. There are some features that can only be examined when the whole is considered just as there are others that must be taken within a particular setting in order for sense to be made. The model then can form part of different magnitude cycles of reflection. Of course, for the purposes of making meaning from experience a single episode can be significant, so long as it is highly involving. However, immersive experience normally involves multiple episodes over time that need to be considered singularly and collectively and typically involves participation in an environment unfamiliar to the learner.

The second issue for immersive experience is what constitutes immersion? Immersive experience assumes that for some significant part of the event, learners allow themselves to be fully part of it, in direct encounter, as John Heron would put it. Intensive and holistic engagement is a characteristic of immersive experience. For the time of that engagement, other considerations may be suspended, for example, recording what is happening might get in the way of the experience itself. However, this does not mean that immersion itself is sufficient, or that recording and reflective processes do not form a central part of the totality of the event. It suggests that to fully benefit from the opportunities available, there are times when being present is worthwhile in and of itself. Paradoxically, in order to be an active subject, there are times at which being active requires a pause of activity. However, to learn from the experience and to be aware that one has learned from it, it is still necessary for reflection after the event to occur, for meaning to be made and for this to be appropriated into ones wider repertoire of knowledge and skill.

The value of a model is to provide a representation of a learning process to be shared between those assisting a learner—a teacher, mentor, supervisor, or peer—and the learner him or herself. It provides a vocabulary for talking about experience and suggests things that may need to be done to make the most of what is available.



Of course, if the assumptions of any model are not valid, then it may be inapplicable. This is most commonly the case in models of experience-based learning when assumptions about the fully voluntary nature of participation of learners are not fulfilled. When intrinsic reasons for participation are overshadowed by extrinsic ones such as obligation, the requirements of assessment by others and lack of choice, then it cannot be assumed that the learner is as an active subject as the model imputes. Most conceptualizations of learning break down when the desire to learn is not present or has been occluded by inadvertent features of the design of the event or inappropriate behaviour of those facilitating it.

### **Beyond models of learning from experience—Learning in workplaces**

Since the development of this model we have learned a great deal more about learning in complex environments that is more than can be summarized here. There have been valid criticism of the experiential learning tradition from both the traditionalists of the critical social science school who argue that there is insufficient attention given to the questioning of basic taken-for-granted assumptions to post-structural and post-modern critics that argue that there is no essential self with a given set of experiences on which to focus (Fenwick 2003). Multiple takes on any given experience are available and we need not be limited to single identities with continuity over time.

In recent years, there has been a new focus on how people learn in work. This interest has been driven by an awareness of the importance of work and the learning that occurs there both for the people concerned and for the organizations in which they operate. While in the early days of research on vocational education and training, frameworks from the education sector dominated with ill-conceived attempts to conceptualise workplaces as educational institutions, there has now arisen a body of work that treats learning in these contexts as worthy of study in its own terms (e.g. Wenger 1998, Billett 2001, Evans et al 2006). Any summary of this work will be partial, but there are some features that are of interest for the present discussion.

#### *Working trumps learning*

The main purpose of workplaces is, not unsurprisingly, to engage in work. Learning is necessarily subordinate to this. More significantly, though, learning in terms that educators would appreciate is not a part of normal workplace discourse and that which does occur is fully enmeshed in work itself. It is seen as part of doing work, not as a distinct activity in its own right. This can be a challenge for students who have mainly experienced educational institutions and the everyday learning discourse in schools and colleges. In workplaces, work tasks may be made explicit, but learning tasks associated with them are often implied. In other words, learning directions are absent.

This poses challenges for immersive experience, as students will be necessarily distracted by, as well as learning from, work itself. They can easily lose their identity as learners and fail to notice important features of what they are doing needed for subsequent reflection. Strategies for disengagement and time-out may be needed in some immersive sites.

#### *Being a learner may be problematic*

In recent studies of learning in everyday workgroups (i.e. those not including students or structured training activities for workers), one of the findings (Boud and Solomon 2003) was that workers resisted being identified as learners. To be a learner was to be identified as less than competent, and being seen as less than competent was to raise questions about being accepted as a normal worker. When interviewed, members of the workgroups did not deny that learning was taking place as a normal part of their work, but they did not want to be seen as learners—'it is like having a 'L' plate around my neck'—and they did not use the language of learning to describe what they were doing. They saw what we as educators identified clearly as learning activities as 'just a part of doing the job'.

Students are legitimate learners when they are temporarily in a workplace. Other workers may be aware that they are not permanent residents. However, this creates a new tension: some things cannot be experienced unless one acts as if one is doing something for real and it is accepted by others that this is the case.

### *Workplace supervisors are not facilitators of learning*

Much of the normative literature on human resource development gives workplace supervisors a key role in the learning and development of the people they supervise. Empirical investigation raises serious questions about this. Hughes (2004), for example, identified the problematic nature of the relationship between supervisor and supervisee as far as learning is concerned. There is an intrinsic tension between the employees need to be accepted as a person who knows what they are doing (i.e. accepted as a competent worker), and the need to reveal what they don't know and can't do which is necessary for their supervisor to facilitate their learning. It is not uncommon therefore for employees to go to great lengths to avoid revealing to their supervisors what they don't know and can't do. They seek out fellow workers who do not have a supervisory relationship over them to learn what they need to do their job. This does not mean that the supervisor has no role in learning—they can be very effective in structuring work tasks to scaffold development—but the limits to this role need to be recognised.

Most placements are such that it is not assumed that the workplace supervisor does more than supervise the work, and it is important to be realistic about the limits of this role. What it does mean is that significantly greater responsibility lies with the student in managing and monitoring their own learning, and staff from the educational institution have a vital role in supporting this function. There is a significant pedagogical role in this beyond that of placement coordinator.

### *Learning in organizations is not conceptualised as individualistic*

Learning in educational institutions is conventionally seen in terms of individuals learning. Assessment is overwhelmingly of individual students and certification of outcomes is recorded only under the names of individuals. This is in contrast to the world of work. The output from workplaces is not individuals and their learning, but products and services and their quality. Sfard (1998) has captured this well in her distinction between two metaphors of learning. Learning in workplaces and communities is situated and specific and is acquired through *participation*. In education, learning occurs through structured activities explicitly designed for these purposes and is acquired through *acquisition*. Work, in Lave and Wenger's (1991) terms occurs through communities of practice in which new members of the community start by engaging in peripheral participation, then moving to a more central place through their involvement with the community through undertaking tasks that increasingly place them as a fully functioning member of the group.

This feature of work means that there will always be a necessary translation from the workplace to formal education. What is learned from participation must be re-inscribed to turn it into learning that can be assessed and judged by the academy.

### *Much learning at work occurs in between*

Finally, our detailed study of learning in workgroups showed that much development of capacity, as distinct from learning to do the immediate work, occurred neither in work, nor out of it. It took place in what we termed the in-between spaces (Solomon, Boud and Rooney 2006) where there was a transition between direct engagement in work tasks and full disengagement in out-of-work time. 'Learning' conversations occurred in the interstices between work and non-work—such as tea and lunch breaks, or around the pigeonholes—though, when pressed, participants denied they were engaged in learning! These spaces also created opportunities for productive reflection at work (Boud 2006). They could be taken up as reflective spaces where issues and challenges could be explored with others.

This can be very confusing for students until they realise that much of their informal learning in educational institutions takes place in this way as well. The exchanges among students between classes, the chats over coffee, the unexpected encounter with a lecturer are undervalued but important features of the academy as well as the workplace and we need to find ways of acknowledging their value.

## **The limits of organising immersive opportunities**

An important consideration in immersive experience is that experiences as such can't be directly planned and controlled. An event can be organised, but what a person experiences

when involved with it cannot be. Experience is essentially relational. An event or activity can afford certain possibilities for learning, but these affordances have to be perceived as such and be taken up by the learner. Any given learner may not have the inclination, the capacity or the prior experience to be able to utilise the opportunities. Throwing learners in at the deep end only works when the learner has the resources and support to be able to cope. If they don't, they just flounder and sink. This then is a sobering test of the appropriateness of immersive experience: can the learner cope with it. Even if the learner can cope, would it be ethically defensible to do so, and if ethically defensible, could the risk be managed within the confines of an educational institution? The risk referred to here is not one of physical danger as it is taken for granted that this must be managed, but one of learning risk: is there a significant chance that learning will not occur or indeed, learning occur that it adverse to that desired?

A key feature of much immersive experience is that there is often no one present who acts in a primary role as a facilitator with the learning interests of the participant as their central concern. There are normally multiple other people, but they are mostly concerned with doing whatever is normally done in that setting—if they are nurses they are nursing, if managers they are managing, etc. Nevertheless depending on their dispositions to the learner these co-participants may be integral to a learners learning.

This means that it is common for the only continuity with regard to learning to be learners themselves. This places significant responsibilities on students to manage their own learning. Indeed, without some significant capacity to do this, learning from the experience can be diminished. This feature of immersive experience also points to the significance of one of the elements of the learning from experience model: the need for preparation with regard to learning skills and strategies including the language and constructs of learning. If the learner is the only person present looking after their learning interests, then they need a repertoire of dispositions and devices to assist them. These may range from macro-level organising devices such as learning agreements for a placement to micro-level devices like that of keeping appropriately an effective learning journal.

Responsible use by educators of immersive experience places an obligation on them to appropriately prepare students to be active managers of their own learning by introducing this feature from the very start of their program.

### **An agenda for considering immersive experience**

This review of experience-based learning and the positioning of immersive experiences within raises some interesting questions that provide a useful focus for further enquiry.

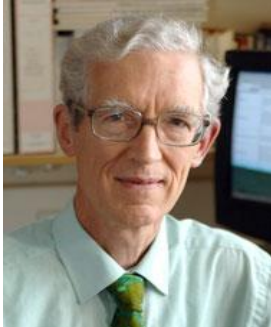
1. What kinds of immersion are good for which purposes? This begs the further question: are some immersive experiences not good environments for learning, or some kinds of learning?
2. What particular kind of immersion is appropriate for the given learner and the given learning outcomes?
3. Why is an immersive experience thought preferable to one that is less immersive for the particular educational outcomes sought?
4. What are the key considerations in the design or selection of an immersive opportunity?
5. Can an event or activity that involves significant immersion be ethically justified and particularly justified in terms of the risks involved? Can an ethical challenge be mitigated by the preparation and ongoing support that the learner receives in a highly immersive situation, or the need for the learner to be prepared for difficult or risky situations?
6. Are learners sufficiently well prepared and suitably equipped to utilise the opportunities the event provides? What constitutes appropriate preparation for immersive environments that are highly unpredictable?
7. To what extent are learners able to notice and retain what is happening in an immersive situation?
8. What occasions and opportunities are there within the context of the activity, and following it, for reflection and processing to occur?

9. Are the reflective processes available for learners sufficiently well understood, and practiced, for them to be able to be applied to the experiences involved?
10. Is enough time available, and conditions suitable, for reflection during and following the event?
11. Are assessment activities sufficiently well designed to ensure that they do not inadvertently inhibit and distort reflection on the immersive experience?
12. In what ways can assessment tools and criteria be made able to take account of the unpredictable nature of the outcomes that emerge through immersive experiences?

## References

- Andresen, L., Boud, D. and Cohen, R. (1995). Experience-based learning. In Foley, G. (Ed.) *Understanding Adult Education and Training*. Sydney: Allen & Unwin, 207-219.
- Billett, S. (2001). *Learning in the workplace: strategies for effective practice* (Sydney, Allen & Unwin).
- Boud, D. (2001). Using journal writing to enhance reflective practice. In English, L. M. and Gillen, M. A. (Eds.) *Promoting Journal Writing in Adult Education. New Directions in Adult and Continuing Education No. 90*. San Francisco: Jossey-Bass, 9-18.
- Boud, D. (2006). Creating space for reflection at work. In Boud, D., Cressey, P. and Docherty, P. (Eds.). *Productive Reflection at Work: Learning for Changing Organisations*. London: Routledge, 158-169.
- Boud, D. and Solomon, N. (2003). 'I don't think I am a learner': acts of naming learners at work, *Journal of Workplace Learning*, 15, 7-8, 326-331.
- Boud, D. & Walker, D. (1990). Making the most of experience. *Studies in Continuing Education*, 12, 2, 61-80.
- Boud, D., Cohen, R. & Walker, D. (1993). Understanding learning from experience. In Boud, D., Cohen, R. & Walker, D. (Eds.) *Using Experience for Learning*. Buckingham: SRHE and Open University Press, 1-17.
- Boud, D., Keogh, R., & Walker, D. (1985). Promoting reflection in learning: a model. In Boud, D., Keogh, R. & Walker, D. (Eds.) *Reflection: Turning Experience into Learning*, London: Kogan Page, 18-40.
- Evans, K., Hodkinson, P., Rainbird, H. and Unwin, L. (2006). *Improving Workplace Learning*. London: Routledge.
- Fenwick, T. (2003). *Learning through Experience: Troubling Orthodoxies and Intersecting Questions*. Malabar, Florida: Krieger Publishing.
- Hughes, C. (2004). The supervisor's influence on workplace learning, *Studies in Continuing Education*, 26, 2, 275 - 287.
- Kolb, D. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, N. J.: Prentice Hall.
- Lave, J. & Wenger, E. (1991). *Situated learning: legitimate peripheral participation* (Cambridge, Cambridge University Press).
- Sfard A. (1998) On two metaphors for learning and the dangers of choosing just one, *Educational Researcher*, 27(2), 4-13.
- Solomon, N., Boud, D. and Rooney, D. (2006). The in-between: exposing everyday learning at work, *International Journal of Lifelong Education*, 25, 1, 3-13.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge: Cambridge University Press.

Some thoughts on:



## **Immersive Experiences at Work: Examples for Early Career Professionals**

*Professor Michael Eraut, Distinguished Researcher SCEPTRe*

Until his recent retirement, Michael was Professor of Education at the Sussex Institute of the University of Sussex. He is the UK's leading researcher in how professionals learn in work place settings. Through his links with SCEPTRe he is now focusing his attention on work placement as an environment for professional training. In this piece he helps us think about immersive experience in the context of the professional work environment.

### **Introduction**

This paper focuses on the experiences of three professional groups during their first three years of employment: accountants, engineers and nurses. Ninety early career men and women from these professions participated in a Sussex/Brighton research project which followed their learning over a three year period\*. Four visits were made to each participant to observe them at work, interview them afterwards and have short, opportunistic discussions with significant others in their workplace. I will begin with an introduction to what immersion might mean in the particular contexts where our participants were working, then describe some of their immersive experiences, before finally addressing what might be done to enhance the learning that occurred or failed to occur.

The positive connotations of immersive experiences include participation, absorbing activities, holistic learning, deep understanding, using a wider range of senses, and the acquisition of confidence and commitment. The negative connotations include 'sinking' or 'floundering' rather than 'swimming', limited participation and progress, alienation, exploitation, few opportunities to learn, lack of confidence and commitment, and withdrawal from the context. There is a strong dimension of emotion as well as cognition, and a positive work identity may be developed or weakened as a result. Another important dimension is groupwork. The majority of our participants worked in teams or small groups, and nearly all of them had contact with more experienced workers; and these relationships had an important influence on the direction and pacing of their learning trajectories.

### **Nurses (case studies of Amy and Edward)**

This emotional dimension is strongest for nurses, because many of them are dealing with matters affecting life and death or serious illness. Moreover, hospital nurses work in wards peopled by many patients, whose compete for their nurses' attention. Decisions related to prioritisation, productivity, engagement with patients and quality of care, are being made all the time, even by novices for whom the neglect or avoidance of a decision is still, in effect, a decision. Hence the first three to six months of newly qualified nurses are extremely challenging; and realistic workloads and appropriate support are essential for their survival. Immersive experiences are the norm, and they are not necessarily positive.

One nurse manager explained the problem in some detail:

*Their time-keeping is a problem for various reasons: ...they have not had to handle a case load themselves before because they've always been supernumerary as students. I think it very much, I found, depends on where they did their training, those that are better at time*

management have usually had a case load. ...I'm not saying this was the right way, because ... if you talk to them they weren't actually supervised very closely at all, however when it's come to now, they are actually much better at organising their workload.

*The other thing is for the nurses that come and work here, a lot of the patients are very dependent and they just cannot get their head round every single thing they've got to do for these patients; and if they've got patients who are fairly dependent, they try very hard to focus on exactly what they've got to do for that patient and they forget about the other patients...they've also got it in their mind that they have to do everything that's got to be done for the patient and ... they feel a failure if they have to pass things on to people on the next shift... so that's [why]... I'd say time is a problem.*

*They have focussed in on certain parts of patient care during their training but not actually on the whole thing... they've been taught a holistic approach but actually when it comes to managing the practicalities of that they haven't...and I would say their handover, the way they do their documentation, it all doesn't flow with good time management skills...they become disorganised ... they go off duty late, they become tearful, frustrated, they feel they can't tell people what their problems are because they feel they'll be a failure; and I know that because they've told me themselves or other people have told me.*

Amy still had time management problems after 10 months. She was observed looking after a bay of 5 female patients, when 2 patients became ill at the same time; and neglected one of them whose condition deteriorated and needed urgent medical attention.

This is what Amy said about her time management during this shift:

*When you get mornings like we had today it was a bit busy, I don't really know where to put myself sometimes...like this morning we had the two ladies that both needed attention at once, it's difficult for me to prioritise who needed the care first and [in] which order and I just had to play it by ear this morning, but sometimes I find that that is one of the things I still need to be learning...*

*... I'm trying to...look after both patients at the same time and do all the pump checks and urines, it's difficult to actually do the planned care for the patients and that's quite frustrating...all the observations, making sure they're not in pain, checking, filling in their fluid balance charts I wasn't able to do today because I was too busy, there's just not enough time in the day to do all of the planned care, checking to see if they've had their bowels open or anything like that and then the social planning as well, the discharge plans, I did get a chance to start but I'm ... not even halfway through them.*

Amy felt well supported by her nursing colleagues during this shift but feels that she should have noticed that Mrs B was deteriorating earlier on:

*I think I got quite good support because the other nurses were around and about quite soon, immediately helping me out; and I just think well maybe I should have looked and seen something a bit earlier, especially with the lady's urine output; because she had had quite a low urine output for a lot of the morning and we did sort of say to them [the doctors] on the round 'it's low' and they weren't too bothered...I would like to have been able to have done observations more regularly on both of the ladies earlier in the morning because I think maybe I would have picked up the tachycardia a bit earlier on the first lady but it's just not enough time in the day for that.*

Amy found making lists helped her to prioritise, but it also made her realise just how much work she had to do. And at this stage of her career, she felt that she had to do it all herself too:

*You get paranoid about missing things, even though it is supposed to be twenty-four hour care.*

*I: Why do you think you're worried about that in particular?*

*A: Because I feel that I should be doing everything for my patients, I haven't really learnt to delegate properly, it's something I need to do.*

Amy's manager confirmed that newly qualified nurses find delegating hard:

*They don't know who they can delegate to, they don't find they can communicate with medical staff, they're in awe of them I would say for quite some considerable time.*  
and tries to resolve the issue by talking about it:

*Well you try to talk to them about [how] you won't survive unless you delegate to people ... I mean the only way to do it is to talk to them on a one-to-one ... Nothing can take away that privacy that they can have to actually bare their soul to you ... and tell you exactly how they do feel. Of course they talk to each other quite a bit so if you've got more than 2 or 3 in a ward together, I think they find that quite supportive.*

Amy finds delegating so hard because she lacks confidence:

*You need to be quite assertive and know exactly why you need it doing and I just think, sometimes you just think "I could get on with it and then it's done, but you just don't get time and then you think "Maybe I should have" but ...*

*I: And is this delegating to other staff nurses or health care assistants...*

*A: Either/ both. I always feel a bit guilty if I've left a lot for the late shift but I mean, it can't be helped really, it's something that happens.*

In spite of the excellent support from her ward manager, she was still learning after 20 months when it was appropriate to call the doctors and when it was not:

*I tend not to panic as much nowadays...I think part of it is learning how to...what to do when and when to observe and when to be worried and call the doctor and not to panic.*

However, by 29 months she had become a team leader and was looking after newly qualified nurses herself.

Good managers recognise that developing newly qualified nurses improves both the cohesion and the skill mix of the ward, and thus enhances the quality of care. We observed one nurse moving from one of the worst learning environments to one of the best learning environments, which were located in the same department of the same hospital. The comparison in Table 1 below provides several indicators of the management factors contributing to both the learning and the well-being of novice nurses.

Figure 1: Contrasting learning experiences in two renal units

The Ward context	The Special Unit context
<p>One week supernumerary, working alongside her mentor. Usual rotation of shift times and days. Do not pay overtime. Very short of staff, low quality of care, no time to talk to patients.</p>	<p>Six week dialysis course before starting. Four days a week, longer day shifts (only open during the day). Pay overtime. Much better staffed. No staff want to rotate back to ward.</p>
<p>Impossible to do job properly, or feel you have done a good day's work. Low morale.</p>	<p>Greater job satisfaction.</p>
<p>Eight patients at a time, huge range of tasks. One co-ordinator tries to achieve continuity of care (nurse sees same patients again), others do not. Gets little support or feedback. Hence reluctant to take on sicker patients.</p>	<p>One or two patients at a time. Single focus on dialysis process. System tries to organise continuity of care (assists fine tuning of dialysis process). Good support from all around (de-centred).</p>
<p>Disillusioned with nursing. Missed induction day and first 3 study days, through lack of staff. Shown how to run ECG machine but without relevant clinical knowledge. Training day on peritoneal dialysis machine, but no follow-up, now forgotten.</p>	<p>Sense of developing expertise. Attention to both machine dials and patient becomes routine. More rationale and reasoning now, more time to think. High dependency training day. Much adjustment of process according to needs/risk factors of individual patients.</p>
<p>Mentor does not go through competency booklet with her. Not assessed before undertaking new activities, e.g. drugs round. [after interview got 1 day IV training and got a 7 x 1 day renal course.]</p>	<p>Patient folders provide useful framework for questioning. Not allowed to take patient until assessed on relevant procedures. [long 9 month renal course next year with rotation around the unit.]</p>

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Edward, another nurse, provided an interesting example of immersion in the team leader role. Edward was promoted after 20 months, having refused his manager's suggestion that he apply for promotion 6 months earlier.

*I was ready for it this time when before I wasn't, I didn't feel that I knew... enough about what I was doing here, I didn't feel that I had enough confidence to be able to...effectively co-ordinate a ward and then... the confidence needed with your communication skills with the consultants... I was viewed by them as one of the nurses and it's very strange now how differently you do get viewed when they come on and they say 'Who's in charge today?' and you go 'I am' and they'll talk to you, which they wouldn't have done before.*

Edward found that the major difference in his role was the extra responsibility:

*I first thought, before I got the job, that the responsibility would... only be there when I was in charge, because obviously then you're responsible for your twenty-six patients on the ward plus all the staff that's working, you're working with as well. But I've since found that, even when you're not co-ordinating, ... the doctors expect more from you ... if the other co-ordinator nurse is busy, they kind of still expect you to know the answers, even if you don't have any idea of what's happening at all.... it's very strange how you get viewed differently... and I mean all I've done is change from one grade to another and all of a sudden it's almost as if I'm... viewed as a different person...that all of a sudden I have more knowledge or I can deal with more things.*

Edward finds it difficult to stay calm and look as if he's in control when he's coordinating:

*I think one of the hardest parts of the job, is especially when you're co-ordinating, is to look calm...even if you're not feeling it inside... you could be going absolutely mad inside thinking 'Oh I've got to do this, this and this and this and this' you've got to portray to the other members of staff that you're in control of what's going on and I think that's probably the hardest part of it.*

He seems to manage this by having time for everyone, while keeping his stress inside. This isn't easy, especially when several people bombard him with information all at once:

*I think I just try my hardest to...not snap at people, I think the other thing that I found is that people always have news for you, they have information they need to give you and they all want to give it to you at the same time, and you can have two or three people even trying to speak to you at the same time or queuing up to talk to you...while... you've still been trying to do something else from three quarters of an hour ago and it's just... kind of being the sponge, absorbing the information, making sure that you're retaining that information for whatever you're going to be using it for when you have the time to, and making it look like you have the time for people, even when they're coming and telling you sometimes the most useless things...you still pretend that you care.*

Edward has found this aspect of the job a lot harder than he thought it would be. He's learnt tips on how to coordinate from watching his colleagues:

*I like to think that I do the job well and I like to think that from looking at the way I'd seen people do it. I do it the same way with not getting myself stressed out...but from when I was watching them do it, obviously they clearly were under the same stresses and strains that I am now, having all these people talking at you and I'm sure I would have been one of the guilty ones that was firing information at the co-ordinator nurse as well. ... I don't know how to demonstrate, power isn't the right thing to say either, but demonstrate assertiveness to a certain degree to have to co-ordinate something like that.*

Edward also has more responsibility now for supporting the learning needs of others. He is hoping to have more clout in getting junior staff onto the D grade development days within the Trust, because, when he was a junior, he was never given the opportunity to attend such study days and felt let down.



*I know that with me now being the E grade, I'm not saying that I have a hell of a lot more power than I used to have, but I have a slightly louder voice up the ladder now, I can be a bit more of a mediator between the D grades and the management and I can say 'I think this person would benefit from going on these courses'... try to assist them, to facilitate them more.*

Edward also feels a certain responsibility to try and change things on the ward and to increase awareness of issues within the wider hospital. He is more aware of the image he presents to others and feels a responsibility to look the part:

*The job that I'm doing today is very different to the job that I was doing when you came in before...and I think that I have to maybe act slightly more professionally, I'm not saying that I was running around tearing the place apart when I was the junior little D grade, spinning about the place like a little toddler that was just ripping the wallpaper off but...I mean I'm looked at by...all the members of staff, not just the nursing staff but the doctors, the MDT...everybody... and also by the patients and their relatives, I'm viewed differently...the patients and the relatives don't know the hierarchy of the nursing and the way it works, they see me being the nurse in charge, I'm automatically the most important, the one that has the right answer and if they don't like what someone else is telling them, then they will come and ask me because I have the right answer, and so I think you do have to...maybe act differently, I don't think that, from a professional point of view, I'm any different, I've developed professionally...with my knowledge ... I think my attitude...to nursing, to hospitals is probably different, I've probably matured in that way slightly, as I was saying before, knowing that I can't change the world but knowing what my limitations are and pushing up to them as much as possible and hoping that I'm doing it, I like to think that I am.*

Most nurses in our sample were promoted to E Grade in their third year, and a significant minority in the latter part of their second year; and this was preceded by a period of team leading. The experience of being promoted was a big step for many nurses, because of the increased responsibility. Those for whom the change was less significant had been doing virtually all the E Grade job before they were promoted. All of them, however, were unprepared by the step change in expectations from other professionals and visitors to the ward, even when they were not 'in charge'. This was not as traumatic as the period immediately after qualification; but it took some nurses quite a while to feel comfortable in their new role.

### **Accountants (distributed apprenticeship)**

All our accountancy participants were graduates training to become chartered accountants. They spent periods of time at a specialist 'college' but, since none of them had graduated in accountancy or business, they were much less prepared than the nurses or engineers. Nevertheless, within a couple of weeks they were immersed in the totally new environment of an audit team working to tight deadlines on their client's premises. The key difference was that they got excellent support through a carefully graduated and planned apprenticeship system.

This graduation occurred at two levels, that of the audit to which they were allocated and that of the assignment of tasks within the audit. Most of their immediate support came from other trainees, only a year or less ahead of them. They began with simple arithmetical tasks then began to learn tasks that required experience of accountancy from these more experienced trainees, who were normally close at hand and often worked alongside them, both ready to answer questions and acquainting them with tasks they would soon be expected to undertake. The teams were usually small and their objective was a jointly constructed product - an audit report for a specific client. There were clear, usually non-negotiable, deadlines; and valuable time would be wasted if trainees got stuck and/or caused delays, however small their tasks. However, it was normally possible for more experienced trainees to pause or find a convenient stopping point in their own task to answer a question or advise on a problem; and they knew from their own recent experience that such help would be needed. Answering what might appear to be silly questions and short coaching episodes on more challenging tasks

were taken for granted part of the organisational culture. Not asking questions and doing nothing were the principle sins.

Progression in their first year requires that trainees:

- pass their first professional examinations
- develop relationships and ways of working with colleagues and clients
- gradually increase the size and complexity of the tasks they undertake
- gradually widen their experience of working with different types of client and different kinds of audit
- gradually increase their capacity to work more independently.

For trainees to make good progress a significant proportion of their work needed to be sufficiently new to challenge them without being so daunting as to reduce their confidence. There are also likely to be competing agendas when tasks are allocated. Trainees are more efficient on tasks where they already have enough experience, but also need to be involved in a wider range of tasks in order to extend their experience. Thus managers have to balance the immediate demands of the job against the needs of the trainees as best they can, as well as satisfying the requirements of the professional bodies. The allocation of work to trainees is determined at several levels:

- management decisions to include them in particular audit teams
- allocation of duties by those “in charge” on client premises
- delegation of tasks or bits of task by the person they are working with.

Given the exigencies of completing each audit on time with the people available, it was not always easy for those “in charge” to find the right balance between challenging work and more mundane tasks for every trainee. Most trainees reported experiencing a reasonable balance of activities for most of the time; although there were exceptions.

In most teams social interaction with colleagues promoted a friendly atmosphere that encouraged trainees to ask questions and to seek help when they were carrying out their work; but when a team was not working well together, or a trainee was left to work alone for long periods, they could feel isolated. Trainees found that they could help themselves by being organised, not getting flustered, being honest and asking questions when appropriate. However, they were sometimes hampered by time constraints and frustrated by recalcitrant clients and colleagues, and what they saw as others’ lack of organisation. Most of all they found that good communication skills were essential when dealing with both colleagues and clients.

In both our partner organisations audit teams offered exceptionally good learning opportunities; and the take up and support of these opportunities was closely aligned with meeting deadlines, improving the skill mix and high productivity. Supporting learning was seen as a good investment, because it increased the capabilities of novice professionals very quickly, made them more useful and gave a good return for intensive early support. The cost of trainees’ time was included in audit contracts, so they were expected to pay their way within a few months. This both added to their sense of inclusion and created clear expectations for their seniors to provide the necessary support.

A distinctive feature of this system is that the responsibility for supporting new trainees is distributed across the members of each audit team, and across the whole organisation, because continuity of audit practice has to be maintained across a series of teams, whose membership changes at the end of each audit. The result is almost an ‘ideal type’ example of a learning context aptly described as ‘distributed apprenticeship’. This learning was not only on the technical side, but also involved seeing how other people develop relationships with clients, consult and make ongoing decisions as problems arise, and manage the whole audit process within the agreed timescale and cost. For example, when problems arise, decisions have to be made about priorities and the allocation of time. Adjustments to plans affect the team and have to be explained to them, so trainees are gradually exposed to a series of problem solving episodes, and come to recognise what is central to the quality of the audit and what is of lesser importance. When is time reallocated by cutting or abbreviating one task

in order to give more time to another, and when do problems cause more total time to be allocated? This enables them to encounter some good role models, to recognise important personal qualities, and to develop an insight into their own future learning trajectories.

Although it takes time for new trainees to find their bearings, they soon recognise the significance of the structure provided by:

- the current audit file under construction;
- the audit of the previous year; and
- the 'tests' (or protocols) devised by more senior managers in the office, selected for that particular client and provided in electronic form to the audit team.

All three of the above have an important role as mediating artefacts, around which both work and learning can revolve. Thus our data is full of new trainees discovering their own ways of doing their job more effectively.

*I saw [a colleague] finish something and he had a look through the file, because when you look through a file you can see what has been done, and he'd say "Well this has not been done and I did this last week so do you want me to go and ask the client now?" I thought I can do that, I can say "I did that last job [before], do you want me to go and do it?" and it's just so much better than saying I have got nothing to do. I think that was when it changed, because I started thinking I can do things for myself and I am not just an employee I am supposed to be part of a team ... before that I was a bit of a tag along, they were the team and I was someone who was learning. Since then I have tried to make sure that I am part of it rather than just an outsider that is trying to learn.*

The overt nature, legal status and clear structure of audit documents give them a key role in the communications between auditor and client, as well as structuring the work of the audit team. The tests then play a key role in communication between the audit manager, who develops or updates the tests prior to the audit, and the team that uses the tests to collect and process the required information from the client. Both make use of the same electronic package, which enables it to impose some uniformity across the whole audit programme of each accounting organisation.

Some of the new trainees' tasks involve getting the relevant files and data from their clients. However, this is not always easy because accountancy involves translating data organised for normal business processes into accounts that can be audited, and clients' workers will not always know what they are being asked to provide. Trainees soon became aware that the most difficult thing to learn is,

*Some of the clients' systems ... They speak to you ... as if you're completely used to their method of accounting things and their computer system. Everyone does it differently, so generally I'm not familiar with what they're doing.*

*Every client is slightly different. They'll do things generally the same way but ... there's still some difference between them. So often by asking them how they do things their own way you can find out how it's normally done and that helps you get a better understanding of what's going on.*

Trainees also came to appreciate that it was important that they should appear to be confident when dealing with clients, whether or not they were feeling confident; because the way they presented themselves would affect the confidence that others had in them. Clients would notice the clothes that they wore, the way that they spoke, and the degree of professionalism that they displayed in their work. Their 'real' self-confidence increased with asking questions, learning and the experience of actually doing the job. When clients were unhelpful, diplomacy was essential,

*You have to walk quite a fine line between pushing them enough to get you the information you require and making sure you don't annoy them ... Often the best way to approach it is to ask them ... you know this is what I'm trying find out ... this is the information you've given me ... how can I tie these up ... so you're kind of placing the emphasis on you doing the work rather than them.*

Nevertheless, it took some time for a few trainees to achieve the level of confidence needed to maximise their learning. Briefings were no substitute for experience:

*I suppose you've just got to go out there ... ask them questions and if you don't understand anything don't sit there ... which I probably used to do a bit because I ...didn't have the confidence to go up and ask them the silliest thing ... When you first came in, you ... didn't really know ... what people were doing, whereas now ... each new client you go to, you get a bit more confidence ... Because ... a lot of them do have the same basic principles behind them ... it's just the odd bits that you need to really ... get the hang of ... I think I'm more confident in ... the answers I write down or the explanations I've given; whereas when I first started, I probably just put ... down ... what they told me, [I did] not really have the confidence to think it [through].*

As far as further learning was concerned,  
*I learned quite a bit about ... management in that ... you speak to three clients within one organisation who are all responsible for one end product but their individual responsibilities are open to question. So liaising three groups to ensure that each of the three groups agree with what you're thinking was something that I had never learned before ... And that was a problem. I didn't appreciate how difficult it is to identify an error ... it's just making sure you've got everybody's agreement because obviously there is a timetable ... [I'm] supposed to see that it happens, but I suppose ... you're more of a catalyst than a driver in that you may encourage things to happen ... but ... if you weren't there it wouldn't have happened.*

### **Role of College**

During his first visit a trainee had referred to his difficulty in understanding his current audit clients,

*They were in yesterday talking to a lot of people and a lot of them I didn't quite understand what they were talking about at the start ... but ... by asking them probing questions without basically saying I haven't got a clue what's going on here you would get an idea of what's going on ... I was probably asking the same question in two or three different forms within five minutes of each other just to make sure that I actually understood what was going on.'*

However, after ten weeks in college, he had found that, when dealing with clients, he was operating from a position of understanding rather than ignorance,

*So ... it's a lot easier ... to start talking about revaluating reserves or permits ... now than it would have been six months ago...Once you've done the audits ... and the accounting modules you start to pick up the specifics a lot quicker.*

While another trainee spoke of the confidence that he derived from understanding:

*It's a combination really, it's not so much college as the knowledge you get from college, and that you understand the issues you're talking about more that helps your confidence. It's a lot easier to talk about stuff you understand than ... go in desperately trying to make things up and cover for yourself [when] you don't fully understand.*

### **Progression**

Consolidating, extending and refining skills is particularly important in early career work, when it is sometimes supported by episodes of supervision, coaching or feedback. Two first year accountants emphasised the cumulative nature of this process:

*I think at this stage every job I do I gain something from it ... I am still learning even though I am still doing the same sections ... all the companies are slightly different, the way they make their money, what their debtors do, how they deal with their debtors, the accounting software that they use. It's all different and every job I go on, I learn something.*

*Every audit you go on you will have picked up things cumulatively from all the other audits you've been on. So if you come across that section again you might think 'last time I had to*

*dig out that as well as that', and cross reference that back. So if you just took two snap shots, one of when you start and one of now, your work would be completely different. But rather than being one specific incident ... it's more cumulative ... especially as the jobs are pretty short.'*

*When I started, [knowing] what was going on was the hardest thing, whereas ... now I understand what's going on pretty much all the time... You have to understand the client's business ... for example the one I went [to] today, timber agents, I can't say I've ever been anywhere near a timber agents until Tuesday morning when I went out there. So it's understanding what they do ... because they all know their business backwards and you're expected to go in there and ... pick up on it straight away, and that's sometimes the hardest bit I find ... I think ... the more businesses you go to, the more different things you see, actually the more you can take those different bits into new jobs with you. Every time you go into a new job it doesn't look quite as strange as it did the job before ... you get more understanding and that ... leads to a bit more confidence in what you're doing and questions you're asking.'*

There can also be strong emotional dimension, which most professionals have to learn to handle. People expect this with nurses, but even accountants have to consider emotional responses when they communicate bad news:

*It has now come to the point where, if there are problems with the accounts, I have to go to some of the staff at the client and ... [tell them], which I didn't have to do before. And it is quite difficult because they're often not very happy with you picking up problems.*

Client continuity is sustained by retaining some members of the previous audit team; and when trainees revisit a client they usually are given much greater responsibility, and their prior knowledge of the client, their business and their financial staff, enables them to work both more efficiently and more effectively.

*I knew the people there, I knew what they did. I think I had about half an hour talking with the manager beforehand just about the general plan, how it would be better than last year because last year was a bit disorganised, it was the first year we'd done it. ... I felt a lot more prepared for that because I knew what to expect ... I understood what I was doing. Whereas last time I ... only did small sections ... this time I was doing whole companies, so I knew why I was doing things. Before it was very much just do what I was told and I didn't really know why or what effects it would have ... [Now] I see things and ... I realise why I did it, ... It's the only way you can learn really. It's just the gradual things and you just suddenly pick it up and think oh that's why I did that. Now it makes sense.*

Another trainee was able to go straight to the problem that had given them trouble before,

*This year it was "Right, what's the major problems with suspense accounts?" [Then you] go away and ... instead of taking two weeks to do it, it's taken three or four days ... because you know which order to approach the work in.*

He explained that he had felt considerably better prepared in dealing with the client, 'You get the reconciliations ... look through them, pick out the ones that look dubious, you go to the account holder and you say 'right, this, this, this and this, what is it, you know, should it really be here?'

He had spent sufficient time on one of the accounts to be more familiar with it than the client was, *Because she had so many expense accounts. It started getting a little bit intimidating for her, simply because I did know what I was doing [and] she didn't. And so ... it was the reverse role from last year.'*

As he had worked on this audit the previous year, the trainee considered himself fairly well prepared,

*You have a very good idea of what the issues are going to be. You know who the personalities are and you know what to look for, so the preparation is really ... what you did last year.*

Another trainee focused on his annual progress,  
*As you're progressing through, you're just going from not doing very much to getting more responsibility and more work. So at the very end of the day ... you're a lead auditor on a large project as opposed to an ... assistant auditor on the deader side of ... the [client 1] accounts ... Next year hopefully ... I'll move into an area where I get more responsibility, perhaps lead auditor on a medium-sized executive agency ... having 20 or 30 million as opposed to three and a half million. And because you've had experience planning, leading and following up a small [client] ... the idea is that a larger one is just a bigger version of the same thing.*

He did not think that he was dealing with more complex issues now,  
*But I would say I'm more aware of the complexities of the work that I need to be doing ... we aren't doing much more work but ... you're more aware of the implications of your work and what it affects ... I can give you a simple example. In the fixed assets for this year in [the client's] resource management system they'd recently introduced ... they'd capitalised ... fifteen or sixteen million pounds worth, but they were then read off over future years. And they'd obviously budgeted for that in their supplementary estimate ... When we looked at it we were saying "Well, actually you have nine million pounds more than you should have capitalised in that expense in this year," and you'll obviously have to go and speak to their resource budgeting department about how they'd put together their budget and how this will affect it and so on. So it was the same kind of work we'd been doing previously but ... [this time] you were aware that it affected future years budgeting, and had to go and speak to the relevant resource management ... Get their agreement that you were right.*

In the various progression points, the trainee considered academic knowledge and skills,  
*The use of evidence and argument ... as time progresses you become more technical. You're presenting evidence and arguing the case as opposed to previously ... say for the first six months you've got the evidence [and ask] what should I do with this? But I think it's much more of a gradual thing ... as you go through you just use your previous knowledge and then just apply it so you build on foundations as opposed to new areas opening up.' In personal development, building and sustaining relationships ... you've now got to the point where you're dealing with people for the second or perhaps even third years. They know exactly who you are, you know who exactly they are, there's no ... questions about people's motivations or not. They know that you're there for a job, you're not there ... to spy on them, to criticise them, to get them sacked or anything ... It's just a job you have to do ... Disposition to attend to other perspectives ... just know how your work impacts on other people. Obviously you're just more aware of things, if things are more interactive, how things interact ... The ability to learn from experience I think you always do that, it's the same example as before. You don't even notice the difference, but there's a noticeable difference.*

### **Managing others**

As with the nurses, the allocation of greater responsibility triggered another form of immersive learning.

*The most difficult thing to learn is how to organise yourself around other people ... You need to be able to work around the needs of not just the client ... but the needs of the manager, when the manager wants to get things done by. And you also have to cope with the needs of the assistants to make sure that you're going to be there for them when they need you, they're not going to be left somewhere while you're off doing something else. ... Before it was always, went on the job ... went off and did it, and if you needed help from someone you got it. Whereas now I'm on the other side ... and if someone needs help they come to me ... And the chances are you're going to be juggling a few jobs, and finishing off one job while you're doing another, and cope with the needs of both.*

His strategy for dealing with this was to,  
*Do it early, organise things early ... Try and get an understanding of what everyone is going to be doing ... That's something that's new.*

Being 'in charge' involved not just being aware of the requirements of the audit, thinking for themselves, and leading a team, trainees also had to conduct themselves appropriately, have the right attitude and sort out a host of problems and issues. Thus the trainee above also explained,

*That really means three new areas of responsibility I've been introduced to. The first is beginning to manage other junior assistants, making sure that they understand what they're doing and then looking at their work and making sure their work is done properly and doing everything that they're meant to do ... The second is [that] I've been much more involved with the planning of other jobs. It was something I had peripheral involvement [in] before but it's now much deeper ... There's been a lot of input into how the job eventually gets turned out and what sort of areas of work we can do. So that's good, I enjoy that. And once the job's done I will pretty much move on to what we call the completion of the job, which is making sure the odds and ends are tied up, type up, everything we're meant to have done has been done, and also an awful lot of form-filling to make sure that everything's been communicated up to the manager of the department, and everything's been signed off ... [That] is something that struck me as a bit of [a] shock ... You suddenly realise there's all this work we have to do now ... I didn't realize that existed before. It always got done by somebody else ... So that's really what's changed for me I suppose.*

### **Engineers (Case studies of Richard, Diana and Sophie)**

Whereas nurses and accountants were immediately immersed in 'real' professional work, immersive experiences were encountered only infrequently by many engineers. In particular the majority of electronic engineers and computer scientists had few if any opportunities to go on site; and this often led to a lack of sufficiently challenging work. I have chosen three cases, where immersion played an important part in learning, development and job satisfaction. Richard was continuously challenged. Diana was under-challenged for her first 30 months, then she was moved to a new office where she was given a great deal of responsibility and projects of her own. Sophie had a mixture of quiet periods and challenging assignments, and became the second member of our sample to become a chartered engineer. Richard and Sophie had excellent line managers, but Diana did not have that kind of support.

#### **Richard**

Richard was unusual for having followed his B.Eng. degree with an MBA. When interviewed after 23 months, he had been working for 3 months with David, a gas engineer, on three projects that made use of both qualifications.

*I didn't have any gas experience at all but David's a line manager who will throw you in at the deep end... One of the first jobs I did was working with a company in Scotland to produce a strategy for Nigeria to exploit its natural gas reserves... we ended up looking at the market diagnostic report and a few other issues and so I ended up helping to produce that... which was basically a lot of research into the exact status of Nigeria's existing gas industry and infrastructure... I ended up using Synergy amongst other tools which is a 'nice' gas-modeling tool... I use 'nice' in inverted commas because it's not user-friendly ... but what you can do is you can input data and build a model... I'm probably one of the few people who thinks this is exciting; but you can actually put gas in at one end, gas out the other end, it will tell you what the pressure drop is, how much gas you can put in, and how much gas comes out. So I learned how to use it for the Nigerian gas strategy.*

The next project involved gas-fired power stations for a large aluminium smelter in the Persian Gulf. New burners were needed to bring the effluent within new environment regulations, and we found that these required higher pressure gas.

*So we looked at a couple of ideas... one was a high pressure boosting system, another was compressors... in the end they wanted compressors so we looked at compressors. I modeled the system on Synergy again, and put compressors in... we estimated the size of compressors we'd need to get the right pressure ... then we looked at various configurations because [they were]... very serious about security of supply because if the power station failed the smelters would lose electricity.. and they have tons of aluminium that is no good to anybody except to go and dump in the desert... so a freeze could cost them over ten million dollars... Instead of one compressor we started looking at ideas of two, three, four compressors... they said well what if one compressor fails? We have to make sure that the pressure fall doesn't trip the burners... so in the end we settled on four compressors, one spare and three running, to supply the power station.*

The compressors were procured and the pipework sub-contracted, while they did the project management coordination.

The third project was even more complicated. They began as consultants to a former soviet republic on the privatization of a gas supply plant, but not its distribution system, then asked to handle the sale. This presented huge problems in finding enough data to enable a buyer to know what was involved. There were no data on gas usage, so a great deal of debriefing knowledgeable people and making reasonable estimates was involved. There were also social and political sensitivities over pricing. This time an economic package was used for modeling rather than a technical package. Richard was involved in much more than the modeling, including high level meetings with ministers.

*One thing with David is that he will throw you in at the deep end and he will he will ask you to meet people who have years of experience... and senior positions...It forces you to prepare for meetings you know because you obviously don't want to fail in what you do... being forced to do it whether you enjoy it or not means that you probably can't help but get a little better at meeting people and being articulate and making the point, at getting the point across that you want... but again it's a learning process.*

When interviewed again after 31 months, Richard had acquired even more responsibility, as a result of a further expansion of projects, some of which he had played a large part in getting. As a result new graduates were brought in to help, and at one stage they got an external consultant to help with gas distribution systems. Richard reported that:

*I have learnt a lot from him ... how you put it together, what the principles are, what you look for ... once you know what the principles are you can do it.*

He also knew what to ask from previous experience, when he was suddenly asked to give a presentation for his company on gas distribution, because no senior people were available: *I said, well I don't know anything about gas distribution. They said you've got a week to learn, haven't you? I actually got two days to learn, so I went on the internet, phoned up everybody I knew and asked all the silly questions. You look like a fool but you try and remember as much as you can ...I went to the meeting, we got the job and the rest as they say is history; but then that's where the hard work begins, that's where you have to read all the reports and the reports are always written from the point of view of somebody who understands [it all].*

Richard made several interesting comments on how he learned from site visits, courses, making mistakes and working alongside an expert:

*Site visits are good ...they let you meet the client, they let you see what you're designing, they also complete the picture... you can get a better idea of what they want by just meeting them and talking to them and it often means travelling and seeing the place and you know being on-site... How much you learn from a development point of view is probably more social, from the interaction side with people from all walks of life whether he's a maintenance engineer or the power development manager for a particular project; but what you bring back is project specific information that's going to help the work that you have to do.*

*I mean you can attend courses ... they may improve your time management, they may improve your project management, they may improve your co-ordination ... a lot of the time it depends on the individual and whether they learn from their mistakes on the job. Everyone makes mistakes ... it's just whether or not we can sit down on a forum and say 'yes, I screwed up on that project, you know, but these are the lessons.' You don't make these mistakes again because I know them... If you make another set of mistakes you get up and let me know what they were, so I'm aware... We all learn off each other, this is at graduate level; and then you see the senior engineers, the people like David and you watch how they manage a project and if your mentor's good he will start feeding in bits and pieces; when you're comfortable with it, he'll give you a little bit more; when you're comfortable with that, he'll then give you a little bit more. With time you're doing pretty much everything he was doing and... he's happy because that's one less responsibility for him .. he's invested the time in training you, your capability is now better and he can concentrate on other issues.*

**Diana**



Diana was a civil engineer working on sewage and wastewater facilities, an area she chose in the fourth year of her MEng. programme. Her first 30 months were divided between the design of a large wastewater treatment works and two periods of secondment to a regional water company. The large project involved small pieces of very detailed work. For example, when interviewed two years after she started, she was looking at potential interception routes, tying into the existing infrastructure to divert some flows.

*I'm cutting out profiles of the existing topography and trying to see where we could potentially put in some pipelines. It's the existing structures that need to be got around also kind of like seeing how all the different levels tie in... I start with a blank piece of paper, I have point A and I have point B and I have to get a route between the two.*

She did get to understand the overall structure, but had very little responsibility, *You have project meetings and a reasonable idea of what everyone's doing and how it all fits together but your particular involvement is usually one relatively small part of a very large project... Depending on the size of the project... I mean, if it's a smaller project your part of it is that much wider... It just so happens that the project I'm working on is huge, so my proportion of it is small... because there's a lot of people.*

The first secondment was useful for getting a lot of clean water experience, *I learnt about construction methods, primarily, the technical aspects of laying pipelines for both water and waste water. We were doing very preliminary sort of high level work, we looked at a large number of schemes and... very high level designs.*

This work was focused on the preliminary design of a business plan and involved 'lots of different engineers from many different companies who were working in one large team'. She also took the opportunity, while engaged in this work, to take some in-house courses on financial and commercial aspects.

Then after 30 months she moved to another company office and a position of far greater responsibility:

*I was given three projects on the first day I walked in and that was my three projects... I'm responsible for taking them through different stages right up to construction so there is a mechanical engineer, an electrical engineer and a process engineer and all the different people assigned to that project. As I need particular guidance in a particular area, I go and speak to those people and get the advice that I need... All the design work is done by myself ... it's a lot more interesting than the work I was doing before, it's a lot more varied... Whereas before I was working on a very small part on an absolutely enormous project, I'm now responsible for an entire very small project... [including]... design, health and safety, environment and finance.*

*My role within the team has changed in the sense that if I go to a meeting now I'm chairing that meeting, rather than sitting on the edge and not needing to say anything and maybe taking the minutes... My role has changed and therefore my interactions with people have changed.*

Moreover:

*Everything we're designing will get built in the next couple of months, whereas the one I was working on before was very much ... it may get built at some point in the next five years or might not get built at all... This is a lot more detailed design, whereas perhaps what I was doing before was more towards feasibility ... There's a lot more real life.*

She also had to learn to manage both her own time, 'juggling between three projects' and, to some extent, other people's time:

*I need to... make sure that the right people are there on the right day and that I can get everybody together; and... to bring the project in on time.*

*Today I'm looking at one particular project preparing for a meeting on Thursday where we're going to need to discuss the different options for the provision of the storage tank; so I need to explore perhaps the different locations of different company set ups. I will need to have a*

*chat with other mechanical and electrical engineers and to discuss the pump sizes and see what's going to be the most efficient way.*

However:

*You can't isolate little bits ... it's a complete story, it's as one. You can't just say well okay I'm going to go and size a pump, ... it depends on how you lay out the site whether you need any pumps at all... So you have to look at it as a sort of more global problem, which is why it's going to be discussed at the meeting on Thursday... We could make a decision as to what kind of storage tanks are available, whether they will put the pumps within the tank or whether we're going to have the pumps further down the site.*

She recognised that it would take her a year or two to become fully conversant with these types of project:

*Technically I probably don't need to learn too much more... It will be the same skills that are used over and over on our projects ... Until I see a project through from beginning to end, I won't have a proper grasp of what goes on at the project with different stages ... so, until I've done that, I can't get a proper appreciation of what the programme requires us to do.*

*I need to have a better understanding of what I'm doing which will come with time... just get more established with what I'm doing... and getting more to grips with how the office works and how the projects are set up.*

With hindsight it seems that this last move was long overdue, but she did observe that there were no new graduates working at this office, and that it was a much flatter organization in which every one was responsible for their own work.

### **Sophie**

Sophie stated that the best part of her degree programme had been her year's placement; but later realised that she had failed to use all her opportunities for learning in that placement by being too worried about appearing stupid if she asked questions.

*Maybe it is my fault for not being proactive enough for finding somebody who could help me ... then I came here and you have like your bosses sitting next to you, and you can shout ... if you've got a problem. It's really easy. ... I've always been a bit shy in going to find people, and worry that they might think I'm stupid if I ask a question. But you kind of ... you have to get over that at some point or else you don't get on.*

This was something she began to realise in her third year at university, *realising that if I got stuck on something, somebody could help me, and I'd only lose out if I didn't ask.*

In her new job with a large consultancy firm, much of her time was spent examining engineering drawings. There are obviously skills in reading these that have to be developed, and she was asked how she had learnt them.

*I don't know. On my placement I was doing a lot of work with piping instrumentation diagrams which are basically line diagrams that lay out the systems. ...well I just work through them really. It's just practice, going through them and trying to put it all together, and then, with the more detailed engineering drawings - I only started that with this company - again I think it's just practice. (I've) taken quite a long time looking at them, asking lots of questions. ... I mean it didn't come instantly.*

In a later interview she added:

*With the design you can learn about the theory and things like that. It's like you're doing design reviews. As I'm going through different sets of drawings, with different projects, you start to see [the] different ways things are done. And that's important I think. So you don't think [that]... this is the only way of doing them .... In our job you get lots of queries (about) how things should be done, or what's the alternative to this being done. And until you've got experience on practicalities, like on site, you can't start understanding how things go together, and maybe different ways of doing things. ... Seeing the practicalities of it brings the design and the theory and the management together for me.*

At this time she was looking forward to going on-site in Iran, despite knowing that she would have to wear a headscarf and full, voluminous clothing in 40 - 50°C.

*I've just been on site when a mechanical component was going in, when the main turbines was going to be installed, and the generator, and just learning how these things go together. So when the next project starts and we start getting queries ... well I'll know and build it like that ... I'll know what happens. And then you look at project programming and you can understand why a thing is happening in that order. ... It means nothing until you see it. ... I mean it can be explained, but you can pick up a lot more - hopefully a lot more on site.*

Other opportunities had also arisen outside the framework. Sophie's directors needed to try out a new computer program. Potentially, it could save thousands, even millions of pounds for the firm.

The "Crystal ball" computer program is a new approach to the predictive analysis of costs, obviously very important in this area of large scale engineering with complicated planning sequences. The program allows the input of some uncertainties into several cells, and when it runs, it comes up with probabilities of what the outcomes might be. So you can put in different assumptions and see where they lead after many thousands of trials that point to the most probable outcomes based on use of Monte Carlo routines.

*I seem to remember that I was probably the only one in the office at the time 'cos the nature of our work is quite a bit of site involvement and trips overseas with the other members of the M&E team. So I was at a loose end, and I was approached by one of the directors who asked me if I wanted to work on this, probably because I think they think younger people have a better understanding of computers and are happier to mess around with them. Which is true I think in my case. And so we started on that. Basically the data was provided by them, and they had a rough idea of how they wanted to put it all together, and it was just up to me to do the leg work and understand the program, and put the data in, and make it work.*

*The first problem was trying to get the data into the computer in the form that we wanted it. And we went through various methods. And as we finally found the handbook and managed to read up on how we should be doing it, it became clear.*

As Sophie was the only one learning from the handbook, she was soon in the position of teaching the directors.

*As I've been going along, I've been writing the "Idiots guide" to using this program for them to use if they need to modify it while I'm overseas (laughs).*

But to get to this position Sophie had had to draw on her knowledge of *Excel*, brush up her shaky statistical knowledge, consult an economist who had used the program, and – through trial and error – develop correct interpretations of the program's output for the company's purposes. The reward came when Sophie realised that,

*There's another consultant within this project who has also been doing the same (kind of computations), but his (method) is project programme based. So they go through - programming the whole project through, and then working out delays. And they charge thousands of pounds to do that work. And they've come up with the same answer as us, who've charged probably, you know, a tenth of what they have, which is quite reassuring and probably quite worrying for them (laughs).*

A new hydro power scheme in Uganda gave her the opportunity to show that she could manage other people, a prerequisite for becoming a Chartered Engineer. She worked on the tender documents, supervising draughtsmen in producing instrumentation diagrams for the power station layout and construction programmes. This had all been really good for her, and she felt that she had gained quite a lot of useful knowledge and experience.

Again Sam, her line manager had been the main source of her training in connection with this work, coaching her through the construction of the associated work book.

She was now happy with the workload, and had more responsibility, both technical and organisational.

***I've got the entire responsibility for the production of the electrical and mechanical tender documents...as it's basically my job to organise (two colleagues) out there to get all the work to me, so that is entirely my responsibility...which is good.***

Talking about the way she learnt what she had to, she said,  
*I need to know why I'm learning something. That sounds a bit strange, but when you get a big project coming up and you know that you're going to have to cover this and that, it's much easier to go out and find information and learn things when you know they have got an end use. (I: Incentive is very important?) Yeah. So I sometimes find that if you do just do training for the sake of it and you think do I need this or that, I lose my way a bit. If I know why I've got to learn something or where the use will be, that's a lot easier. Also I think you get more out of it if you know what you need to achieve, if you know what you need to learn, what you need to find out.*

In this, Sophie was stressing the over-riding importance of motivation for her learning. The incentive is more important than the actual mechanism by which one learns. The mechanism doesn't matter quite so much if one has the correct incentive to learn. She felt that the level of challenge had been rising at a reasonable rate in the job. But appreciated the difficulty of finding suitable work for new recruits.

*It would have been [helpful] if I could have joined one [large project] at the beginning; because when I first joined ... [the] project in Iran ... the civil work was all done. I joined at the point where we were just checking mechanical and electrical drawings and things like that, so I got a little bit of experience there, and then going through to the site supervision and installation. Whereas working on projects like I had in Scotland and India and Kenya, you get to see them from the beginning, how the contract is set up, and how all these things all start to move along in parallel. I think if you're lucky enough to join them at the beginning, it's quite good because you get the whole process and understand the project quite well.*

She knew she had benefited from the 'ask anyone' culture in an office that contained so many different kinds of engineer, but added ...

*I think the most important experience that I've had is getting out on site. Suddenly you start looking at the engineering and thinking why did they do it that way? Would I do it that way? If not, why not? It gives you a whole lot more experience to draw on. So that's the most important experience that I've had.*

*There's also something about the timing of the training. There's no point in having the training until you've got another contract on the way, so I could put the training into use rather than do the training sort of leave it there for six months.*

### **Modes of learning (Eraut 2007c)**

In making sense of this research, we highlighted three main questions:

- How did our participants learn?
- What did they learn?
- What factors affected the magnitude and direction of that learning?

I start with what we chose to call 'modes of learning'. Our first distinction was that of whether a learning episode was described by our respondents as 'learning' or as 'working'. We found that the majority of learning occurred during when participants described themselves as working. Indeed they often needed prompting to describe how they had progressed from Time A to Time B, before that even recognised that they had been learning. When they did begin to acknowledge such learning, it was seen not as a distinct and separate process but as a by-product of their normal working processes.

Hence, we decided to classify learning processes according to whether their **principal object** was working or learning. Processes in the left column of Table 2 below were judged to be working processes, from which learning was a by-product, while those in the right column are clearly recognizable as learning processes.

Table 2: A Typology of Early Career Learning

<b>Work processes with learning as a by-product</b>	<b>Learning activities located within work or learning processes</b>	<b>Recognised learning processes at or near the workplace</b>
Participation in group processes Working alongside others Consultation Tackling challenging tasks and roles Problem solving Trying things out Consolidating, extending and refining skills Working with clients	Asking questions Getting information Locating resource people Listening and Observing Reflecting Learning from mistakes Giving and receiving feedback Use of mediating artefacts	Being supervised Being coached Being mentored Shadowing Visiting other sites Conferences Short courses Working for a qualification Independent study

Another problem arose when we became dissatisfied with including processes, which were clearly bounded and relatively time consuming, in the same list as very generic and often quite short activities, such as asking questions, observing or reflecting. These activities could occur many times in a single process, and were found within almost every type of process, often several at a time. When we moved these 'activities' into a different category, the central column in Table 2, we obtained the much tidier typology that we finally used. We also included the use of mediating artefacts in the central column because, although some artefacts were used mainly during learning processes, most artefacts used for working were also used for learning.

### ***Work processes with learning as a by-product***

These account for a very high proportion of the reported learning of people we interviewed during our mid-career and early career projects. Their success depends both on the available opportunities and on the quality of relationships in the workplace. Hence the amount of learning reported varied significantly with person and context.

*Participation in group processes* covers both team-working towards a common outcome, as shown by the accountants' approach to learning auditing, and groups set up for a special purposes, which were important learning contexts for those engineers who participated in them such as discussing a client, problem solving, reviewing some practices, planning ahead, or responding to external changes. Diana's second workplace provided a high level of cross-professional work, which transformed her learning opportunities; and the participation levels for Richard and Sophie were also very high. Nurses' level of participation was strong when they had good managers, but otherwise depended on collegial relationships.

*Working alongside others* allows people to observe and listen to others at work and to participate in activities; and hence to learn some new practices and new perspectives, to become aware of different kinds of knowledge and expertise, and to gain some sense of other people's tacit knowledge. This mode of learning, which includes a lot of observation as well as discussion, is extremely important for learning tacit knowledge or the knowledge that underpins routines and intuitive decisions and is difficult to explain. When people see what is being said and done, explanations can be much shorter and the fine detail of incidents is still in people's minds; and multi-sensory engagement over some time enables the gradual development of tacit as well as explicit situational understanding. This was very important for learning in all three professions. Those who lacked this kind of opportunity, through the way their work was allocated and structured or poor relationships in the workplace, were seriously disadvantaged in relation to their peers.

*Consultations* within or outside the working group or even outside the organisation, are used to co-ordinate activities or to get advice. The act of initiating a consultation, however, depends on the relationships between the parties, the extent of a worker's network and the culture of the workplace. For newcomers the distinction between a consultation and being mentored or supervised is not always clear, as part of a mentor's or supervisor's role is making oneself available for consultation. Both Richard and Sophie had mentors, who acted as brokers in making contacts with a wider range of expertise. The personal agency of learners in making

contact with potential sources of advice was also an important factor for engineers and nurses.

*Tackling challenging tasks and roles* requires on-the-job learning and, if successful, leads to increased motivation and confidence. However, people are less inclined to take on challenges unless they feel confident both in their ability to succeed as a result of previous experience and in the support of their manager and/or colleagues. Without such previous experience and support, challenges pose too high a risk. Again, there are also individual factors with some learners being more adventurous and proactive than others.

*Problem solving*, individually or in groups, necessarily entails learning; otherwise there would be no problem. Such problems are not just technical, they may involve acquiring new knowledge before one can start, searching for relevant information and informants, imagination, persistence and interpersonal negotiation. Richard was particularly strong in this area.

*Trying things out* is distinguished from less purposeful behaviour by the intention to learn from the experience. It requires some prior assessment of risk, especially where other people might be affected, and may require special arrangements for getting feedback, as well as time for subsequent reflection and evaluation. It could be described as a defining characteristic of engineers, and those who were starved of such opportunities were far from content.

*Consolidating, extending and refining skills* is particularly important when entering new jobs or taking on new roles, when it is sometimes supported by episodes of supervision, coaching or feedback. It is greatly helped by informal personal support and some sense of an onward learning trajectory. Both accountants and nurses had opportunities to assess out both essential and possible learning trajectories; but some of the engineers were given little formal or informal support in mapping their future progress.

*Working with clients* also entails learning: (1) about the client, (2) from any novel aspects of each client's problem or request and (3) from any new ideas that arise from the encounter. Some workers have daily experiences of working with clients, which may or may not be recognized as learning opportunities. Some progress from less to more important clients, or from those with simple needs to those with more complex needs. There can also be a strong emotional dimension, when a client arrives in a distressed state or is about to receive bad news. This is a context where sharing experiences can be helpful. Another factor is the extent to which client contact gives the work meaning and value, and thus enhances workers' sense of collective purpose.

### ***Learning processes at or near the workplace***

The right column of Table 4 lists nine processes whose prime object is learning. These are listed in terms of their proximity to the workplace. Thus supervision, coaching and mentoring are at or very near the learner's normal workplace; shadowing and visiting other sites are usually in other people's workplaces; conferences, short courses and working for qualifications are usually not in workplace settings; and independent study can be followed almost anywhere that is quiet.

*Supervision* came either from managers or from more experienced workers. For most novices the main influences of their line manager on their learning were through the allocation of work, appraisal, and support for any formal learning that required fees or time away from the job. New young employees were usually supervised by the person 'in charge' of the relevant work group. The manager's role in enhancing or constraining learning is further discussed below.

*Coaching and mentoring* are provided mainly for newcomers, and occasionally for newly appointed managers and training in new technology. In nursing, coaching was often limited by managers not being prepared to release potential coaches from their normal work, and only half of them had active mentors who worked alongside them or engaged in discussions about learning. Most engineering mentors failed to take their roles seriously or to develop an appropriate relationship with their mentees. In many situations mentoring was provided by helpful others, who were not designated mentors, and this worked very well in accountancy, where on-the-spot support and feedback was the norm.

*Shadowing and visits to other sites* are used for inducting new employees, for workers taking on new responsibilities and for improving cooperation between different sites. They could be very helpful for developing a wider understanding of projects, other work groups, suppliers and customers; but this need was often underestimated.

*Conferences* are probably more important for updating and networking than for direct learning, and *short courses* were the main kind of formal Continuing Professional Development. Attending short training courses was important for some people at particular stages in their career. But even then, work-based learning was important in developing the ability to use what has been learned off-the-job. This was especially true for short courses, which have very little impact unless they are appropriately timed and properly followed up at work. Engineers in large companies had many relevant opportunities. Nurses found it very difficult to get time off, unless they had a learning focused manager. The accountants already had their ongoing college courses, which prepared them for their professional qualification.

*Working for qualifications* was central for the accountants who spent several weeks at outsourced training colleges to prepare for professional examinations. This was valued by all the trainees, although the appreciation was not always immediate in the first year. This also required considerable independent study, and they were given some time off before examinations. The engineers all started with the intention of becoming Chartered Engineers, but many of them lost interest in this goal. The main reasons were the paucity of chartered engineers in their workplace, the value of the qualification (high for consultants but not significant for progress in other types of organisation, and lack of access to some of the required experiences. Nurses began to consider taking further qualifications when they were given responsibility for sicker and more complex patients, for whom further formal knowledge was needed. Some embarked on degree programmes in their third year, while others were beginning to think about it.

*Independent study* may be supported by the provision of knowledge resources and/or agreed plans, such as lists of competences, learning projects or personal development plans. Formal training and knowledge resources such as manuals, reference books, documentation, protocols and an intranet were generally available to all workers, the engineers in particular using the intranet as their prime source of current information. Apart from essential textbooks, manuals and guides received limited use. Learners generally found it quicker and more effective to get information directly from more knowledgeable colleagues or the minority that did conquer the manuals.

### ***Learning activities located within the processes described above***

The nine learning activities in the central column of Table 2 were embedded within most of the work processes and learning processes, but were also found in short opportunistic episodes. The key issues for learning are the frequency and quality of their use.

*Asking questions and getting information* are important, proactive activities; and good questions and knowledge searches are appreciated in positive learning contexts. However, many novices feel diffident about asking questions of senior colleagues unless they are working together and the question is spontaneous. They feel that asking a “silly” question would reflect badly on their reputation and are afraid of being prematurely labeled as a “weak” practitioner. This constraint, however, does not apply to talking to peers or novices a year or less ahead of them who still remember what it was like at their stage; and this should be considered when allocating and supporting new staff. Locating resource people is also a proactive activity that requires confidence and social understanding. Some early career professionals were very proactive in seeking out and developing relationships with a wider network of knowledge resource people, while others gave it little attention, often because they did not appreciate its potential value.

*Listening and observing* activities are very dependent on what the observer/listener is able to grasp and comprehend; and comprehension depends on awareness of the significance of what has been said and/or done. Such awareness and understanding is developed through discussion and reflection, for which some had more opportunities and encouragement than others.

*Learning from mistakes* is possible in most working contexts, both from one's own mistakes and those of others; but opportunities for this activity are frequently missed. The accountants had all their early work checked by others, and the accounts themselves provide some cross checks. Engineers considered learning from mistakes as very important. Nurses also valued it, but were equally insistent that many things should have been taught to them in advance before they made a mistake. Given their over challenging start, this was understandable.

*Reflection* is included here, because it occurs both on and off the job and often plays an important role in recognizing and learning from mistakes. Authors such as Schon (1983, 1987) have argued that reflection lies at the centre of nearly all significant learning, but have not fully explored the range of reflective learning agents (individual or group), foci (current, past or future), contexts (busy or relaxed) and purposes (monitoring, decision making or learning) and their influence on the reflective process. This topic is explored in some detail in Eraut (2004)

*Giving and receiving feedback* are both important, often vital, for most learning processes. We found that most learners need short-term, task-specific, feedback as well as longer-term, more strategic, feedback on general progress. But the two are not necessarily found together. Good short term feedback on performance was often accompanied by an almost total absence of strategic feedback, giving even the most confident workers an unnecessary sense of uncertainty and lowering their commitment to their current employers (Eraut 2007b).

*Mediating artefacts* need more explanation in spite of their considerable value. They play a very important role in structuring work and sharing information by mediating group learning about clients or projects in progress. Some artefacts in daily use carry information in a standard way that novices soon learn to understand. In both nursing and engineering, these include measurements, diagrams and photographs. For example, patient records cover temperature, fluid intake and output, drugs administration, biochemical data and various types of image. These refer both to the immediate past and to plans for the immediate future, and salient features considered important are prioritised for the incoming shift at every handover. Understanding the thinking behind the handover rituals is essential learning for newly qualified nurses.

A mechanical engineer was observed discussing virtual design 'drawings' on the screen over the telephone with colleagues, contractors and clients on an almost daily basis; and she also sent digital photographs and measurements to initiate a discussion about a sagging bar. A water mains planning engineer and her colleagues all used her meterage progress reports to decide whether to clean out a mains pipe, re-line it with plastic piping, or replace it, all with different associated costs and time implications.

Accountants learned how to interpret audit files and the 'tests' they were given for sampling their clients' data. They learned to give some priority to significant changes in accounts over time; and they needed considerable tact to find out how their clients' business processes were represented in their accounts when their clients' accountants regarded them as self-evident.

Then at a higher level of complexity, engineers used design specifications and software packages; and nurses used the MEWS protocol for deciding when a patient needed urgent attention and patient pathway protocols for patients with particular conditions. Accountants used software packages for organizing their auditing processes. The really expensive ones were used as a guide for the auditors through their tasks, as a framework for assigning sub tasks, as a repository of accumulated judgements, as an archive of explanatory material, and as a record for the following year. The distinctiveness of these higher level artefacts was their incorporation of a considerable amount of professional knowledge, and they could be used, albeit under supervision, before all that knowledge had been acquired.

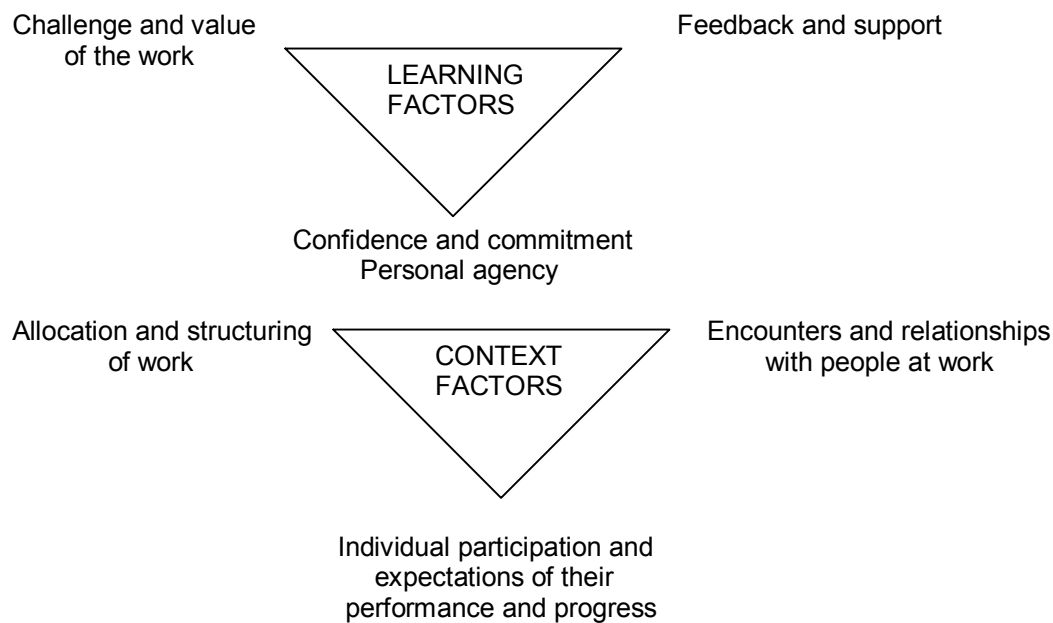
## **Conclusions and Recommendations**

Figure 3 below depicts (1) how learning at work depends on positive interactions between the challenge and value of the work, the confidence, commitment and personal agency of the



individual workers, and the feedback and support they receive; and (2) these learning factors are themselves influenced by three interacting contextual factors: the allocation and structuring of work, relationships in the workplace, the level of participation and the expectations of significant others.

Figure 3: Factors affecting learning at Work: The Two Triangle Model



The majority of workers' learning occurs in the workplace itself. Our data suggests that there is *considerable scope for enhancing workplace learning* in a wide range of contexts. Hence the current neglect of workplace learning by national policies and most public and private organizations needs to be remedied.

Formal learning contributes most when it is both relevant and well-timed, but still needs further workplace learning before it can be used to best effect.

*Support and Feedback* are critically important for learning, retention and commitment. Feedback is most effective within the context of *good working relationships*. Much feedback is best provided by people on the spot in contexts where the local workplace has developed a positive learning culture of mutual support. More normative feedback on progress, strengths and weaknesses, and meeting organisational expectations is also needed, while the *emotional dimension of working life* requires ongoing attention.

The quantity and quality of informal learning can be enhanced by increasing *opportunities for consulting with and working alongside others* in teams or temporary groups. Both being over-challenged, like some of the nurses in the first few months, and being under-challenged, like several engineers, is detrimental to learning and bad for morale. Both issues can be tackled by giving greater attention to the allocation and structuring of appropriate work.

*Managers* have a major influence on workplace learning and culture that extends far beyond their job descriptions. Their role is to develop a *culture of mutual support* and learning, not to provide all the support themselves. This should be given much greater priority in management development programmes, incorporated into qualifications for managers and supervisors, and included in the appraisal of all managers.

Novices, mentors and managers all need:

- To have greater awareness of the range of ways through which people can learn in the workplace
- To be able to discuss learning needs in the context of a portfolio of perceived *learning trajectories*

- To recognise and attend to the *factors which enhance or hinder individual or group learning*.

At a strategic level, the research indicates what needs to be done to develop a learning organization that is more than a rhetorical aspiration. *Factors that enhance learning also enhance retention, quality improvement and organisational performance*. Hence senior management needs to address the strategic significance of all these factors holistically (Eraut & Hirsh, 2007).

## References

- Eraut M (2004) The Practice of reflection, Editorial, *Learning in Health and Social Care*, 3, 2, 47-52
- Eraut M (2007a) Early career learning at work and its implications for Higher Education, in Entwistle N & Tomlinson P (Eds), *Student learning and University Teaching, British Journal of Educational Psychology, Monograph Series II no.4*, 113-133
- Eraut M (2007b) Feedback and Formative Assessment in the Workplace Paper for TLRP seminar series on Assessment of Significant Outcomes
- Eraut M (2007c) Learning from other people at work, *Oxford Review of Education*, 33 (4), 403-422
- Eraut M and Hirsh W (2007) *The Significance of Workplace Learning for Individuals, Groups and Organisations*, SKOPE Monograph 9, Oxford University Department of Economics, 96pp [downloadable from SKOPE website]
- Schon DA (1983) *The Reflective Practitioner*. Basic Books, NewYork
- Schon DA (1987) *Educating the Reflective Practitioner*, Jossey Bass, San Francisco

### Some thoughts on:



### **'Just Being a Student'**

*Natacha Thomas Final Year Law Student*

Natacha is well placed to describe what immersion can mean in the context of being a student. After leaving college at 18 she worked in a number of businesses. She joined the University of Surrey as a Law student in September 2005 but somehow she has managed to study, juggle employment (half-time to almost full time), be a Student Union representative, become a DAVE skills trainer and play a full role in the skills training programme for students run by the Students' Union, and made many contributions to SCEPTRe's work. If anyone knows what an immersive experience being a student can be, it's Natacha. But Natacha goes looking for immersion.. she creates by her engagement with multiple dimensions of life a truly immersive world for herself. For Natacha, immersion is a way of being and becoming.

### **Where do I begin?**

We arrive at university ready to get this amazing thing called a degree which is going to get us this amazingly well paid job at the end of it. Well, we certainly work out quickly that it is not that easy. Being pulled in a large number of different directions at once is not something that is easy to cope with if you are not used to it. Study, money, a part time job, your expectations, your parents' expectations, social life, boyfriends and girlfriends. Individually, they are not so bad but when they come together and collide, as they do, it can be a real challenge to stay on top. But all in all, when you think about it..juggling and balancing all these different areas of one's life is a pretty good way of preparing for the rest of it. So my perspective on immersion is simply seeing my whole life as being immersed in a very complex world: a world that has at its heart the experience of being a student.

So how do we learn to make sense of it all and put life in some form of order? Learning this is invaluable, because the harsh reality of being a student is we have to choose from the rich menu of life and make decisions about how to spend our time. Learning how to make the right decisions to keep everything moving in the right direction is another important skill for living in a complex world.

### **Preparing for life – how exactly can you do that?**

As young people, we are always being told by those who are older and wiser that life will throw many things our way; but it is the things we choose to catch and how we juggle them that ultimately defines who we are and who we become. So we need to prepare, be armed and ready to go out into the big wide world, stand on our own two feet and take life in both hands! At the age of 18, when that journey begins for most, it is a scary, exciting and fascinating world and in our minds, we think we can achieve anything! We really will make a difference to the world. And while it might be misplaced, surely we need such self-belief to survive and prosper in a world, which can be as unforgiving as it is giving.

Then the reality of being away from home for the first time kicks in, being in unusual surroundings with strange people and being told that the way that we behave and what we achieve over the next three or four years will define the rest of our future. Wow! that amazing bright fantastically well paid future seems a lot more difficult to achieve. I remember sitting in my initial talk from the head of department thinking this is amazing, exciting, exhilarating and downright terrifying. I was sitting amongst people, most five years younger than me, convinced that they all in some way knew how to play this game that is Law better than me, that they knew how to secure the contract at the end better than me, that they had the edge. During that first talk, we were informed that a law degree is a full time job and that everything should revolve around it. This was difficult to comprehend because already had a full time job to support myself, but I drank it in and hung onto every word because this was it, this was the start of my journey to become a lawyer.

I soon discovered that to juggle all the things I wanted and needed to do - study for a law degree, have a full time job to support myself, take on an executive position with the Students

Union, various volunteering pursuits, a social life and occasionally sleeping and eating, and still fit in as many nights in Rubix as I could.. I was going to need to be superhuman!

### **Analysing my problem**

So, I took a step back. I guess that to survive in this complicated world we have to be able to analyse problems so what was my problem? My personal life was sortable, my job was sortable and the volunteering slipped into place, sleeping and eating would come later! I realised the one big area that I needed help with was my degree and career. I attended a number of talks, read reams and reams of literature, spent hours on the internet until I was square eyed trying to find this elusive answer or formula that was going to make the heads of Chambers want to employ over the 50 other candidates. So far all I have found out is there is this amazing thing called *other skills*. Apparently getting a first is not enough! Employers want us to show that we can network, communicate, participate, be adaptable, be flexible, solve problems, manage and lead change and all this with a big smile on our face and be a fantastic team player to boot. As if all this was not enough I had to learn a new language - law! Latin, English and legal jargon.

### **Preparing for a complex world – what does it actually mean?**

So if being a student is taking the opportunity to prepare ourselves for the complex world outside the campus, what might this mean? In my legal studies and my work, I have always been taught that if you are going to find the meaning of something you need to look at it closely and in detail. Preparing – getting ready, getting together the things that you need in order to do something. Complex – sounds intricate and difficult to understand with lots of bits. The world, I guess, means the world of work or just about everything.

And students wonder why it is not all laid out for them!!! Look at in another way, how can a university prepare through the training, support and guidance it provides, 14,000 different individuals each with their very specific chosen pathway. The answer is it can only do so much to help me as an individual. What I learnt very early on in my work and my studies is that if you want help and support you go and find it yourself. The lesson we all have to learn is that we have to be responsible for our own destiny – we have to be responsible for preparing ourselves for what lies ahead.

The second lesson I have learned through my work and my studies is that you can never be totally prepared. Life is just not like that. We adapt and react to the situations and issues that are put in front of us. For example, my first conference at work. I had to organise and facilitate an event for about 20 providers of training within our district. I had to make sure everything was set and ready to go. I sat down and I looked at it, thought about what I had to do such as invitations, agendas, security passes and most importantly catering and worked out how to go about it so as to make sure that neither I nor my boss looked stupid. I made mistakes, largely in forgetting to invite a couple of people until a few day before and silly little things but I went through the process and I learnt. I took a problem, I looked at it, I worked with it, I spent nights lying awake worrying about it.

There was just too much going on and I couldn't anticipate everything that would happen. What I had to be able to do though was respond quickly when something unexpected did happen. But I certainly learnt from the experience. And that is another important preparation for life. Treat experience as a resource for learning. You never stop learning. The people at the top of their game are there because they know what they are doing. They keep up to date, they find out what they need to know and they seek out new ways of working with problems and strategies that will keep their business fresh.

I remember on one occasion a line manager telling me she had loaned me out in return for a chocolate brownie to the team opposite to conduct all necessary working for the moderating meetings within the district. I looked at my desk and saw the pile of work already there and thought how on earth am I going to do this? By nature, I see such things as a challenge and, largely thanks to my mother; I am stubborn to a fault, I took the bull by the horns. Onto the intranet I went, I arranged meetings with the person I was taking over from and learnt all I could. I looked at my workload, cried and then I thought of a way of working with it. So I think

working with a complex world is also about attitude: not giving up when you feel overwhelmed and knowing where to go to search for help and answers to your problems.

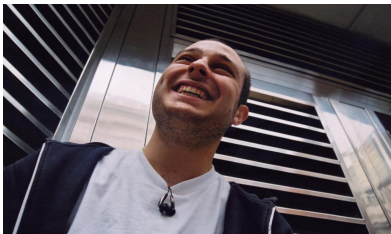
Universities need to encourage students to develop these dispositions and skills. They are essential for life. In an ideal university, all students would be able to have access to the exact plan of how to reach their career goal. If you look at a niche course such as law, the understanding is that there are two ways to go – solicitor or barrister. However, do you work in the city, abroad, in criminal or civil law, defence or prosecution, do you take a solicitor or barristers position or look into politics or policy instead. There were 180 students in my year when I started; every single one had a different dream. There is so much diversity, it would be great if there were some magic formula that our lecturers could use and make it easier for us but there isn't. There is no obvious route for graduates to take. This is why a student needs to take the help available to them and to take responsibility for the rest.

When I first started, I saw the different parts of my life – my study, my work, my social life and my personal life as being separate – when in fact they are not separate. They are an integrated and connected whole. And it is in seeing and experiencing the whole that I get my sense of immersion. I cannot deny that I try to be a part of as many things on campus as possible and this is also overflowing into my work. Not content with the core responsibilities in my job, I actively try to find more. And in this I also try to push myself in the way I complete the work to become even better.

My work is an immersive experience in itself. I take on a problem and work with it to find a solution, not just for that hour that I interview but afterwards. It stays with me in case I can find another way to help my client or I think of another avenue to explore. Some cases obviously stay with me more than others, that is the nature of the work. Realising this has made me wonder how I am going to switch off when I start to practice law. I am, "hopefully", going to be spending my days working on appalling crimes trying to make sense out of them so as to be able to bring about a conviction. My worry is that I will become so involved that the ability to shut off when I go home will not be there. My worry is that I will find myself thinking about cases on the way home, on the sofa in front of the TV or just randomly at the weekend. But perhaps this is part of the immersive experience of most professionals be they doctors, teachers or engineers.

I love being involved in so many things. I love to be busy. But what will happen in May when I am no longer a student and not involved in a lot of things that I do now? At the moment, it feels a bit like I am at the eye of a storm. Calm with everything rushing around me - in a good way! I dip in and out of the swirling parts on a very regular basis which keeps my interest. What happens when the swirling parts aren't there anymore? I guess I will just have to create some new ones!

Some thoughts on:



## My Work Placement Year

Corin Douieb

Corin completed his degree in BSc Sociology in 2007 and he is now focusing on his musical career. His first album was released last. Check out [www.myspace.com/thelastskeptikmusic](http://www.myspace.com/thelastskeptikmusic) for more information. Perhaps the most distinctive feature of the Surrey University experience for most students is the year long professional training work placement. One of the things that interests SCEPTRe is how this experience changes people. Corin wrote this story earlier this year for a competition that was focused on enquiry-rich experiences but it also illustrates very well the sort immersive life changing experience that can be gained through a self-created work placement that is undertaken in another country/culture.

### Creating a work experience

The only way to start this story is from the very, very beginning. As a second year Sociology student at the University of Surrey, my academic career had been above average, enjoying and engaging with my course as much as possible. I juggled university work with my hobby/part time job of producing hip hop music (making beats) for rappers, and had just seen my second single released earlier that year. However, always one to seek a challenge, when it came time to decide on a third year work placement, the idea of change resonated deeply within me. Having visited the U.S a number of times with my family, and holding many close friends over there, it seemed like a natural progression to push the boat out, and see if I could do it. I visited my placement tutor and proposed this idea, to a flat initial response. Understandably, the Sociology department held no resources for the massive task of placing someone abroad, knowing the lengthy process and bureaucratic nonsense that is involved with gaining a visa.

But I was determined to enquire further. I had moved away from home for University, but being a Londoner, Guildford was close to the comforts of calling in on my parents if I ever needed help. I am a sucker for punishment, and the idea of moving so far away from anyone I knew was the challenge I had craved. I had to find out whether I could drop everything and live completely independently, and start from scratch in a seemingly alien environment.

Due to the vastness of the USA, I had to narrow my search to places where I knew at least a few people who lived there. The idea of the U.S capital, Washington D.C, had always been appealing to me, as a Sociologist, comparing the social disparity between London and D.C (the two capitals of the Western superpowers) was a fascinating prospect. An old friend who I had known through my music convinced me even further, and over the following months, I applied to nearly 300 jobs in and around the area of Washington D.C and Maryland. I sent letters and emails, all to non-profit organizations, and at the same time wrote to charities to raise funding for the impending costly visa and flight fees.

Recognizing the seriousness of my search, and sheer determination, my placement tutor provided much needed help and encouragement in this long process. The months passed, and although I began to gain grants from charities, job rejection letters continued to flood in. Despite this, I continued to compile all the necessary US visa forms and prepare myself for a small victory. It was mid June, and the 11<sup>th</sup> hour of my search when David Levy, CEO of non profit Children's Rights Council based in Maryland, called me, offering me an internship. Absolutely elated, I immediately applied for the Visa, paying vast amounts of money just to apply through a third party. Excruciatingly, after spending that money, my application was rejected.

However, to the disbelief of my sponsors, Levy managed to pull certain strings, as the next day, the decision was reversed. The process of obtaining a Visa was more gruelling than I could ever have imagined.

## **A new life a new place**

I flew to the U.S on August 23<sup>rd</sup> 2005, completely overwhelmed by excitement, and trepidation, holding no idea of the journey that awaited me. I arrived armed with only one large suitcase, a sampler (my instrument of choice, to continue making music), and a huge smile on my face. The eight hour flight could not go any slower.

I arrived in the U.S to be welcomed by a couple of old friends, who over the next few days helped me move in to a non furnished rented room in house that I had found on the internet. My first full day involved painting a bright yellow room a more decent blue, and set up the laptop that I had been lent from my American friends. If it was not for their help and kindness, I could not have survived.

The CRC internship was an eventful experience in itself. My eccentric boss David Levy showed his true colours within the first few weeks, in a way that could not translate to page, due to its utterly hilarious set piece nature. Working with other interns, we worked to gain Governmental support from Congressmen and women to joint-custody legislation that CRC supported. Once this legislation was supported and sponsored, it could then be taken to the House and pushed through as American law. Gaining sponsorship was the most fascinating and rich experience of my time with the CRC, as going up to the iconic Capitol building and meeting important political figures (even for a left winger such as myself) was incredibly humbling.

Interspersed with working at the CRC, I worked in a small Vegan restaurant and a record store in central DC to make friends and a small wage on the side. The experience of really working and living with American people was incredible, as I was welcomed everywhere I went. I made friends easily, and in the big lonely country I seemed to build a new support structure. There are too many people to mention, but they all helped me many times over, and to them I am indebted.

## **Defining moment**

As for defining moments of my year, the following definitely classes as a major one. Before I describe the following, seemingly cinematic scene, it is important to note that I had previously never received hospital treatment or experienced anything of this nature. On Halloween, 2005, I walked home alone from the Metro station at night. As I meandered along deserted streets, I was approached and attacked by three men wearing balaclavas, punching me to the ground. One pulled out a knife, and another had a gun. Pointing in my face, nothing flashed before my eyes like in the movies, except for trying to think of the quickest way for me to escape the situation. They wanted everything I had, but my confidence took the better of me, and I refused. Seeing no way out, I threw my iPod at them, and in the scramble, I ran to the main road, running in front of a car to get help. However, looking the way I do, they believed I was trying to car jack them, and drove off, with me still holding on to the wing mirror in desperation. I fell and continued running with the gun wielding muggers chasing me. Eventually I stopped a car, who waited with me until they had run off. I was shaken but adamantly happy that I had escaped with most of my possessions, and more importantly, my life. I reluctantly went to the hospital to check my wrist, and discovered my elbow was broken in the fall. The hospital was an incredible experience in itself, as with the private health care, it was insurance or credit cards first, health second. As I walked through the emergency ward, holding my arm, the nurses made a fuss over me and my English accent, as I told them to attend to the gun shot victims before me and my 'small injury'.

As testament to it being a small world, I entered the triage, only to be assessed by a man who was from my area in North London! A coincidence and a blessing that made me feel at home at my lowest point so far in my journey.

## **And then....**

After a few months recovery, work and an uncomfortably American Thanksgiving, I spent Christmas that year far away from home, with a friend's family in New Jersey – and truly

experienced the Italian Soprano's style of living. All along I reflected and continued to dwell on my time so far. I missed everyone at home, but felt so liberated at being able to deal with all of the obstacles on my own. I had spent time reflecting on the intentions of the CRC, and the fact that rather than fighting for Children's Rights, they were more in fact a father's rights organization.

These doubts propelled me to apply for a Fellowship at the Polaris Project. Polaris worked to combat and raise awareness of, the horrendously clandestine crime of human trafficking. I was offered the opportunity to be a research and media awareness Fellow, and learnt fathoms on the subject, in amongst helping to set up DC's first safe house for victims of sexual enslavement. During this time I found my true interest in the social field, inspiring me later in my final year to write my dissertation on the subject, and pursue a career in the area.

After another house move I was located in the bustling heart of DC. I was a 20 minute walk from the White House and yet my area was riddled with poverty. The worst schools and least investment in the country was situated so close to so much power, and this disparity truly upset and inspired me. The past two years of sociological thinking were finally being applied in my real life situations, and working within non-profits who have Governmental reach, I could see how legislation was not working at ground level.

In March 2006, after only a few months of work at Polaris, I became extremely ill. I entered the frenzied and non-communicative American health system alone, and to this day, what made me ill is partially unknown. I was told I suffered from glandular fever, but it was strengthened by two factors. I had been diagnosed with Gilbert's Syndrome, apparently a disorder I have had since birth, it meant my liver was not fighting the infection, making me extremely ill. The super strength drugs that were prescribed to me had negative reactions, and I was jaundiced, bed bound and stuck overseas. At this stage, my parents wanted me to come home, but I felt that if I didn't stick out the year, I would not have succeeded in my journey. Being stubborn as I am, I remained active every day, sometimes hobbling around with an extreme fever and nausea. I eventually moved to Boston in June to stay with my girlfriend, also on work placement, where I rested and enjoyed the beautiful surroundings until I travelled home in August.

### **Some reflections**

Before I went to the U.S I had grandiose plans of travelling the length of the country, exploring and being free, but due to the unforeseen illness, I couldn't realize that dream. Instead what I gained was a rich understanding of how to live independently whilst staying relatively static in an unknown environment. The experience built my strength as an individual, inspiring my final year of university, future career choices, my music and more importantly, influencing how I choose to live my every day life.

Through every up and down, I never once regretted embarking on my enquiry rich journey. The ability to investigate and push the possibilities of every opportunity to the limit made me truly see the full worth of every situation that I found myself in over the year. The creativity that I channelled through my music while I was living in the U.S provides some of the most aurally insightful journals in to my time there. Using my music to link up with fellow musicians provided an amazing connection to people I would not have otherwise met.

I have provided a very, very, potted and simplified account of my year abroad, missing many stories, good and bad times, and wishes and hopes behind decisions. However, I hope even the part of the story I have described will show just how much of a riveting, educating and enlightening journey I embarked on.



Some thoughts on:



## **An Immersive Experience: Making a Classical Recording of Chopin's 4<sup>th</sup> Ballade in F minor Op. 52**

*Dr Emilie Crapoulet, Postdoctoral Research Fellow,  
Department of Music, University of Surrey*

Emilie was born in Aix-en-Provence and has dual nationality French/British. Her interests in music and literature have led her to investigate the nature of artistic communication and meaning. She studied the piano in France and was awarded several prizes before going to the Conservatorium of music in Sydney, Australia and the Guildhall School of Music and Drama, London, where she was awarded a Master of Music degree in 2001 and a Postgraduate Diploma in Music Performance in 2002. She also has an M.A. in English Language and Literature on Shakespeare from the Université de Provence (France) and a joint doctorate from the University of Surrey and the Université de Provence for a study on music in the works of Virginia Woolf. Emilie's essay describes the sort of immersive experiences that are a necessary part of seeking perfection in musical performance.

This project was a true journey of discovery: it was a challenging undertaking that necessitated total engagement and concentration and the use of many skills - musical, technical, technological, creative and relational. It involved good preparation, good basic skills and an open enquiring mind. Because we were working together, as a team of students, in one given place, at one given moment, the whole experience was immersive in a way which surpassed the dynamics of many other learning contexts. We were plunged into a world in itself, with its own time-scale, its own space, and a complex problem to solve, which prompted us to respond with enthusiasm and dedication, revealing a rewarding and inspiring process of investigation, enquiry and revelation. We rose to the challenge. We were led to co-create an experiential microcosm of learning and creativity, which physically, intellectually and emotionally inspired and challenged us to achieve the perfection we were striving for.

### **The Project**

Our objective was to produce and edit a high quality classical recording of Chopin's 4<sup>th</sup> Ballade (for solo piano), one which combined a good sound quality and a good performance. A good recording should make the listeners feel that they are sitting in a concert hall hearing a live performance, but without those distractions and potential flaws which can sometimes mar the concert experience (background noises, performer's mistakes, etc.).

### **The People**

One of the interests of this project came from the fact that it involved students from all years and backgrounds, thus cutting across the usual disciplinary boundaries.

Principal actors:

- Pianist (myself), PhD student (music)
- Tonmeister, final year BMus (Tonmeister)
- Producer, MMus Production Module student

Others involved:

- assistant to the Tonmeister (first-year BMus Tonmeister)
- observers (other MMus Production Module students)
- lecturer

### **The Context**

The context of this project was particularly conducive to a good sense of team-work and collaboration. We were all, in some way or another, seeking to achieve the best possible

result, primarily because the whole process was not a purely academic exercise, but it was intimately linked to the world outside Higher Education. Not only was the recording to become part of our portfolios of recordings (which we shall be using as demonstration CDs for many years to come), but it was also conducted within a professional environment (the PATS recording studios are often used for external professional recordings). It was particularly motivating, for instance, to have access to some of the most up-to-date technology in use at the moment in the recording industry. We thus discovered together the ins and outs of SADIE, for instance, the editing software we used at the postproduction stage. The Tonmeister was very much familiar with this software as it was used in the (mainly classical) Chandos CD company with which he did his placement year. He was therefore able to show us how the programme worked in great detail as well as give us insights into his experience of his placement year.

Even though we each had specific technical knowledge and an individual role to play in the process, we were also very much aware of each other, constantly interacting with one another and learning new skills. The lecturer was present during the recording session (but not the editing). He is there to guide if need be but he does not participate directly in the proceedings.

Overall, the atmosphere of the whole project was particularly exciting because we felt that we were doing something worthwhile and meaningful.

### **The Challenges**

Such a complex project, involving so many different skills and people, necessarily put us to the test and challenged our creativity. From this experience, we learnt first hand which qualities are fundamental to any form of enquiry which takes place within such a close-knit immersive experience: how to work together as a team, how to listen to each others' opinions in order to discuss the issues constructively, how to sometimes allow for compromise and how to always have an open, positive and dynamic attitude.

I shall be focusing on four core areas within the project which led us to use our own initiative in order to solve the problems which arose at each stage. These could be summarized as follows:

- 1) obtaining a good sound quality which suits the style of music performed.
- 2) maintaining a freshness of playing, concentration and physical energy throughout the morning's session. This is particularly difficult when I have to make several "retakes" of the same passages.
- 3) maintaining coherence of interpretation, tempi, phrasing, dynamics in all the multiple takes. The responsibility for this is shared between the producer and myself. The producer has the advantage of having a detached and neutral ear and might pick up mistakes or inconsistencies of interpretation which I would not necessarily notice myself in the actual moment of playing.
- 4) achieving a good "edited" version which flows naturally and imperceptibly from section to section as if the take was made in one go. In the case of this Chopin Ballade, we must have made at least 30 cuts, though this is not audible in the final recording thanks to the skill of the Tonmeister and our intense and discriminating listening sessions during the recording and editing phases.

#### *1. The sound quality*

Preparing the studio for the recording is the first step. The sound engineer spends an hour or more with his assistant (usually a first or second year undergraduate who is "learning the ropes") setting up different types of microphones in strategic locations in the studio so as to get a quality of "sound" which is as natural and pure as possible. If placed too close to the strings, the microphone can pick up the thuds of the hammers and loses the full spectrum of harmonics, thus creating a harsh wooden sound. If placed too far away from the piano, the sound becomes fuzzy and uniform as the microphone fails to pick up the delicate nuances of dynamics in the cross-currents of echoes and reverberations. The Tonmeister does not do this all on his own. The producer and myself are working closely with him at this point as we also have a specific sound in mind for the style of music I am playing – whereas a Mozart

sonata might warrant a clear bright sound, a Chopin ballade, such as that which we were recording on that day, needs a mellow rich sound. Once we have experimented with different types of microphones and lay-out and made sample 'takes' of various passages in the music (to gauge the effect of the softer sections *versus* the louder sections, for instance), we settle on a sound quality we think is natural and start recording. Later on, at the editing stage, additional "ambience" or reverberation may be added artificially to give more depth of sound to the recording.

## 2. *The recording session: a musical jigsaw puzzle*

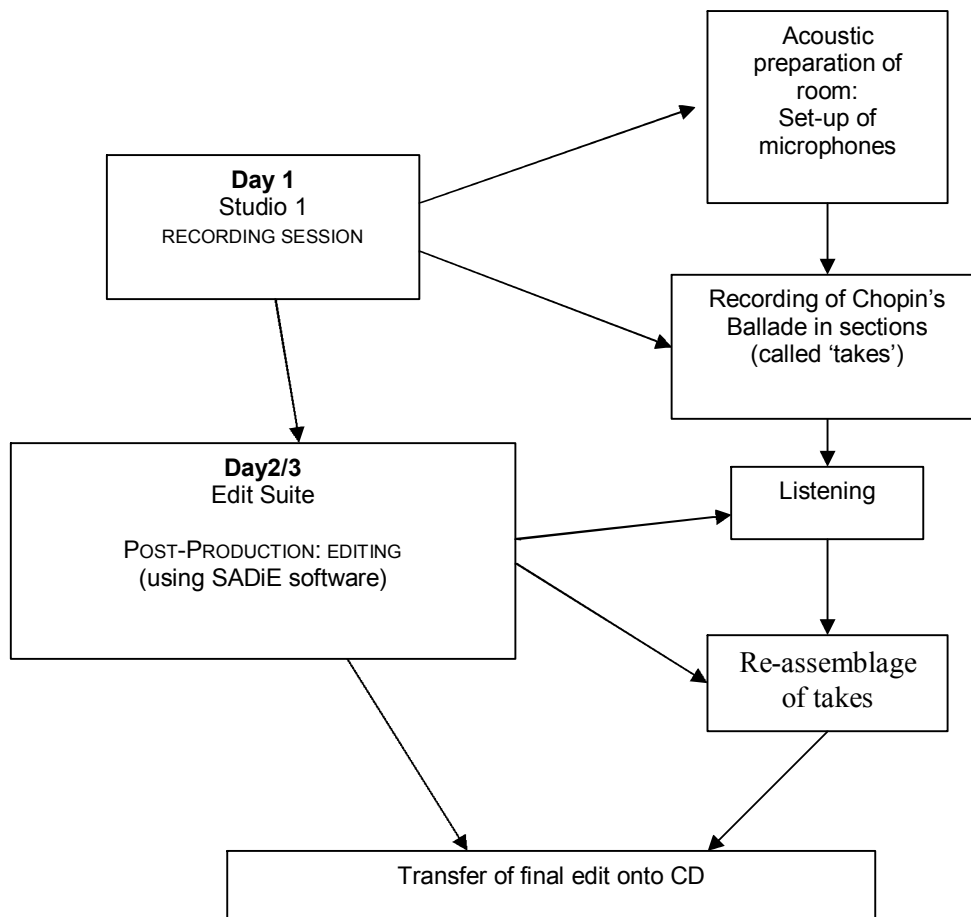
In order to achieve "perfection", the end result of a studio recording is in fact a *collage* of the best 'takes' we made during the recording session. A studio recording could best be described as a musical jigsaw puzzle – my performance is split up into sections during the recording session and then reassembled in step two, during the editing process. We aim to have at least two or three good 'takes' of each section from which we can choose when editing the piece.

Playing to a forest of microphones is not like playing to a live audience. In a recording studio, the musician relies exclusively on the producer and the sound engineer to achieve the best possible result. In order to be good, a classical recording must not only be note-perfect, though this is, of course, a fundamental condition of any recording, but it must also, more importantly, sound spontaneous and natural – something which is particularly difficult to achieve in what are often clinical studio conditions. At this stage, the producer's role is very important as he or she has the responsibility for noting down on the score all the errors and potential retakes. Throughout the session, the Tonmeister also keeps a detailed record of all the takes we make (take numbers, bar numbers, sections played, quality of take, timing, etc.) so as to be able to locate them as fast as possible in the final editing phase of the project. In this way, at the editing stage, we will not have to listen through the whole 4 or 5 hours of recording in order to find the one we want each time. The producer and the Tonmeister's work at this point is crucial from my point of view, as I cannot remember all the mistakes I have made, nor can I judge certain aspects of phrasing, dynamics or tempo. It is indeed very important to keep the same tempi and dynamics throughout, in particular in multiple "takes", so that any potential cuts will not jar. It is not only my role but also the producer's role to judge whether my interpretation remains consistent throughout the session. The producer has to focus on listening to both the micro-level (specific mistakes which may require retakes) and the macro-level (the coherence of the takes in relation to each other). If I do, for example, a take for bars 1 to 68 at 9 o'clock in the morning, but we then decide to retake bars 56 to 79 three hours later because we spotted an error in bar 62, the producer needs to make sure that my tempo and dynamics in the second take are more or less the same as those in the first take, in order to give the Tonmeister the option to eventually paste the two takes together imperceptibly. One of the main problems is that of choosing strategic places to start and finish the takes which will enable the Tonmeister to then cut and paste different sections together without the cut being audible in the final recording. Cuts can only be made at certain moments in the music, determined by resonance and harmonic overlaps. The easiest cut is made in silences, but in the case of the Chopin Ballade I was recording on that day, there were very few silences. We therefore discuss in advance the start and finish points for takes before I re-play the sections in question. I very often come into the control room myself and relisten to takes in case I feel I need to change my interpretation in any way.

Figure 1. Chopin, 4<sup>th</sup> Ballade, op. 52 – facsimile of the score of bars 1-16 (score downloaded from [www.sheetmusicarchive.net](http://www.sheetmusicarchive.net))



Figure 2. Outline and timescale of recording process



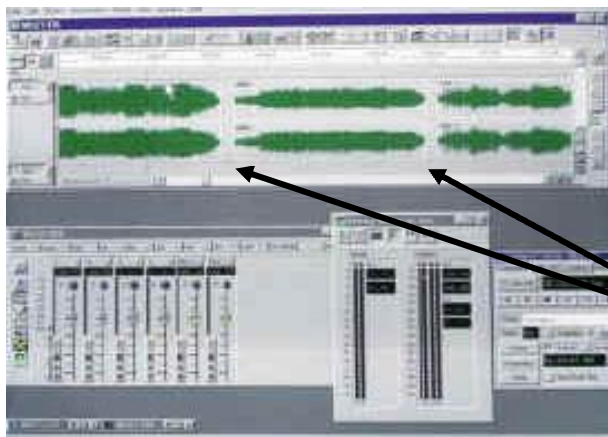
The whole recording session is extremely tiring because I have to maintain my concentration and physical energy as well as the sense of spontaneity and freshness in my playing for the whole duration of the recording session. It is also a very exciting process as we try to solve problems of dynamics (the effects on tape are often achieved differently from those of a live performance, so I have to change my interpretation accordingly), discrepancies in tempo, technical difficulties, etc. within a short time-scale. We discuss various ways of interpreting passages and most importantly, the producer and the Tonmeister also support and encourage me when I get frustrated with certain passages which I sometimes cannot get “right” even after a dozen takes. Even in a sound-proofed recording studio, sometimes, a creaking piano stool, somebody banging a door outside or the ceiling cracking in a soft passage can spoil an otherwise perfect take, to our great dismay.

In the recording business, a recording session needs to be done as fast as possible to avoid any additional costs from over-time. Because this project is conducted within the framework of the MMus Production module, we have a very tight schedule which thus prepares us for what we shall be facing in the “real” world. This is particularly motivating as we do not waste any time and we get to the point very fast.

### 3. Post-production: the editing process

Once satisfied with all the takes, the producer, Tonmeister and myself plan to meet again in order to start the editing. The producer will prepare an editing plan which he/she works out from his/her notes. The idea is to have the fewest possible cuts in order to maintain continuity in the flow of the music. The tonmeister will use the producer’s editing plan to make a “first” edit. The three of us then listen to this first edit in one of the listening rooms, marking down on the score any spots which need re-editing. Very often, the first edit is a very rough cut and the editing will take several days to complete as we listen painstakingly to each and every note. The whole recording appears on the screen as a complex network of sound waves, which enables the Tonmeister to pinpoint the very start of each note with extreme precision (see Figure 3 **Figure 1**).

Figure 3. Screen-shot of a cross-section from the Chopin Ballade using SADiE software – note the green sound-waves (the music) and the gaps (silences).



It is very easy at this point to paste in a different take of this section as it is framed by two silences.

Sometimes it is very difficult to paste in certain sections where no silence occurs in the music and the Tonmeister will work on blending two takes together in order to smooth over the cut. He can also slightly slow down or accelerate a passage without distorting the sound, if, by any chance, the takes we have are not perfect matches. The final edit needs to have complete and utter continuity of tempo, phrasing and dynamics. It must sound as if it were played in one go (rather than in bits and pieces stuck together). For a performer, this is a fascinating process because we build my interpretation up together from miscellaneous takes which sometimes sound very different – it allows me to really reflect on what my “interpretation” means. In a live concert, the interpretation remains a unique one-off performance which can be changed at each concert according to the mood of the moment, the acoustics of the room, the piano, the response of the audience, etc. But in a recording, the listener will be able to re-listen to the interpretation many times.

## **An immersive learning experience: a stimulating process of enquiry**

I have never had a more stimulating and rewarding time. If I were asked to briefly summarize what made this experience so valuable, I would emphasize the quality of the teamwork and the sheer excitement of having to deal constructively and creatively with the many problems and new challenges we faced at each and every stage of the project. All three of us - the Tonmeister, the producer and myself, the pianist –worked in such close collaboration throughout and with such utter dedication to the task that we were able to produce a recording of Chopin's 4<sup>th</sup> Ballade whose quality we felt surpassed many commercial classical CDs. On the way, I also discovered many other things: the project involved not only sitting down at the piano and playing a piece of music, but also, in this case, listening to others' directives and opinions, deciding as a team how to proceed, and working out potential difficulties. To be allowed to try out our own ideas and proceed at times by trial and error was far more effective than to be simply told what to do. This was particularly valuable as in a non-academic or professional situation, we would not expect to be told how to solve the problems which we would be facing.

Because the learning experience was one of total immersion, the result was enriching for everyone who took part, and not only by the production of a good recording and the acquisition of a technical qualification. It involved making judicious decisions at every step throughout the process, working hand in hand and collaborating closely together at each stage of the project and always keeping an open enquiring mind as to the best ways to proceed and obtain the best result.

## **The performers view: Studio Silence**

*Emilie Crapoulet*

I am alone, immersed in a world within a world where sound is all that matters. Sound and silence. The external world has been shut out so effectively by thick walls and hermetic double-doors, that it has ceased to even exist. Suddenly, as if the wings of a firefly has briefly touched the glassy water of a pond, breaking the surface into a million ripples of twinkling wavelets, the ceiling creaks under some invisible pressure, sending slivers of atoms flying through the silence, their ephemeral energy quickly spent in the surrounding space... I sit motionless at the piano, my hands lying on my lap, my head bowed in intense and quiet concentration. I am about to perform one of my favourite pieces, a Ballade by Frederic Chopin. His fourth and last. Different from the others. Pervaded by mournful gypsy tunes reminiscent of Chopin's Polish roots, this work has always had an elusive, strange and mysterious quality. I remember walking alone in the hills, preparing this moment, playing the music in my head, over and over again, asking myself "what, why, how?", and linking tones with tones, phrases with phrases, chords with chords, trying to make sense of the music. As I searched for a meaning, a new world appeared, a world of abstract patterns and colours, relations and structures, a world which I would soon be bringing to life and communicating to my audience... A click. The black speaker in the corner of the studio suddenly comes to life, its little red light flashing urgently in the muted light, breaking the stillness. I look up towards the control room, vaguely seeing human shapes in the penumbra, separated from me by a thick tinted glass window. They wave and smile. I nod and wave back. 'All set, ready to go, take 1'. The disembodied voice of the producer breaks through the air. With another click, the sound engineer flips the microphone switch off. Again, I am alone. Again, a wave of silence washes over me. But it is not silent. Small sounds which would have otherwise gone unnoticed are suddenly magnified out of all proportion. The aeration vents are gently breathing in and out and the fluorescent lights are softly buzzing. The room feels alive, like some sleeping beast which will soon awaken to the sound and fury of Chopin's Ballade. I am not only to play the music. For a moment, I am to forget myself and be the music, and so doing draw my audience into the music so that they too forget themselves and become the music. But today, my audience is a forest of grey and black microphones. These are particularly difficult ears to please. Blind, unresponsive, unforgiving, silent, cold and calculating, they will remember and record every detail of my performance, the good moments, but also, the bad. It is difficult not to become self-conscious of one's technical limitations, to focus on the bad rather than the good. It is difficult not to give up in despair when two minutes into the music, something goes wrong and the whole section needs to be played again, and again, until every note has its correct place in the flow of the music. Every flaw, however minute, needs to be rectified until the piece is "perfect". But what is perfection in performance? In a concert situation, many variables affect one's interpretation. The piano itself, sometimes bright, sometimes muted, its action heavy or light, greatly influences the way one plays a piece. The acoustics of the room – from a reverberant church to a dry, deadened hall – will affect its sound-world. The audience, quiet or noisy, sullen or

enthusiastic will change the whole atmosphere of the concert-hall. Tempo, voicing, balance, phrasing or dynamic progressions are thus governed by such external variables, by a constant adjusting and readjusting of the interpretation to suit the moment, thus creating a two-way communication between the artist and the audience. That is why each and every live performance is never perfect as such because it is always different, but also always new and exciting, spontaneous and alive. How different is the experience of the recording studio. Playing on one of the most beautifully toned and desirable pianos in the world, in one of the most carefully gauged acoustics in the world, without the distractions that even the most well-behaved audience will provoke, my interpretation is stripped down to its most essential expression. Pencil poised above the score, the producer is waiting patiently, straining to hear the first notes of the piece, wishing me to play my best, ready to inspire me to new heights by taking on the role of an entire audience, responsive, enthusiastic and trustworthy. My lifeline. The Tonmeister sits at the control panel, keeping an eye on the little screens, hands hovering over the buttons, ready to adjust volume and balance. He has already spent hours perfecting the sound, moving microphones here and there, until the recorded piano sounds as life-like and natural as the piano itself. I reflect that they too are in a parallel world – a small box of a room dominated by two giant loudspeakers. Connected together by a thin network of wires, we are never so close as in those instants of silence before I play, when I can sense them holding their breaths, willing me to outdo myself. Lifting my hands to the keyboard, I close my eyes and feel the space around me receding, the walls of the studio falling away. The first three bell-like notes of the opening of the ballade seem to softly probe the surrounding air, an emerging melody as mellifluous and enticing as the call of a siren to lost sailors. Gradually, more voices are heard and the calm opening section gives way to an ever-increasing crescendo of colours, textures and speed. Like fireworks, criss-crossing waves of sound build webs of lightning filaments, the chains of atoms dancing hand in hand to the sound of music. Sound is colour. Sound is texture. Sound is pattern. A revelation. I can see it, I can feel it, I can create it. Swaying slightly on the piano stool, I set my whole mind and body on building a living, ever changing architecture of sound from Chopin's masterpiece. As the last notes of the piece die away, I feel the room heave a sigh, as if exhausted by such an onslaught of sound. The Tonmeister and producer are smiling and laughing, happy at the result. I too am elated, if slightly dazed by the intensity of the performance. Even so, for the next 3 hours, we painstakingly go through the piece line by line, page by page, over and over again as I try to recapture the spontaneity of the first take and improve each section so that the producer's final jigsaw of assembled takes will be as spontaneous, seamless and flowing as that first performance, so that it will be perfect not only in letter but in spirit. At the end of this experience, it seems to me that, together, we have transcended the emptiness and inhumanity of the recording studio, that I have been playing not to a blank wall of microphones but to a universal audience, the music thus reaching out far beyond the walls of the concert hall. Finally, we close the lid of the piano, disconnect the microphones and switch off the lights, locking the doors behind us. In its silence, the dark empty room dreams of music past and future...



## Some thoughts on



### Adventure Making

*Anna Newell Artistic Director, Centre for Excellence in the Creative and Performing Arts An Interdisciplinary Arts Programme, Queen's University, Belfast*

Anna Newell is the Artistic Director of the Centre for Excellence in the Creative and Performing Arts (NI) - an interdisciplinary arts programme at Queen's University Belfast. Prior to this she was a freelance theatre director working for 16 years with an eclectic range of professional and community companies of all shapes and sizes, creating performances and projects with professional actors, dancers, women's groups, prisoners, young adults with learning difficulties, students and primary school children amongst others.

*Whatever you dream you can do  
Begin it  
Boldness has genius, power and magic in it.  
Begin it now.  
Goethe*

### Education as Adventure Making

Just a few weeks ago, a friend was asking me what I would do if I didn't do what I do. In talking through the various and often bizarre options (wedding planner, organiser of group holidays/short breaks, events management), I realised that they were all versions of what I do now and what I love doing but which I hadn't ever put a name on. Mostly, I've realised, I'm an Adventure Maker. And that's how I approach and why I embrace the immersive experience as a key educational arena.

I was a freelance theatre director for 16 years, creating a wide and eclectic range of projects and performances with community and professional companies; and for the last two I've been the Artistic Director of the Centre for Excellence in Teaching and Learning in the Creative and Performing Arts at Queen's University Belfast.

When the University set up my CETL(NI), they made one very radical decision that both influenced the journey that the project would take and that struck a chord for innovation that was the beginning of the tune that the project is still singing. As the programme was about expanding the provision for professional arts practitioners to come in and work with the students in an interdisciplinary creative practical way, the University decided that their CETL would, uniquely I think, have an Artistic Director; and that this post would be set up so that they would recruit a professional practitioner to create the vision for this programme of work.

Coming from the professional arts world, I was already completely sold on the notion of the immersive experience and its ability to engage, inspire and transform. By this I mean I would find myself in a room with a group of people and know that four (or if we were very lucky, five) weeks later, people would pay to see what they have created where previously there was nothing. And that the journey from the starting point to the end point of these experiences was always challenging, invigorating, compelling, and – at its very best – exhilarating.

On taking up my post I set about devising, organising and delivering a whole range of these sorts of experiences as well as programmes that worked to a longer time frame. Initial experiments took the form of several "lock-yourself-in-a-room" interdisciplinary performance projects – two intensive weeks of devising, skills development and ensemble building with students from a variety of arts disciplines working with several professional practitioners to create a final performance piece. Projects included: 'The Road Not Taken', 'As Close As You Get to Being There' and 'How to disappear.'

These experiences were extra-curricular and students very much voted in with their feet – in fact, with the most recent project we had a waiting list of students wanting to give up two weeks of their holidays to participate in one of these projects – a project that would not have any impact on their degree marks at all. Why? Because many of them had felt disengaged and uninspired wandering from one big



anonymous class to another and they were hungry for a more intensive, challenging collaborative experience.

Coming from a non-academic background, the most overwhelming task I was given on day one was to set up a new interdisciplinary arts MA. I won't go into details here as to the long and continually changing discussions we had on the way to create the model that is currently running, but I was keen for it to be bold in its design, to be lyrical in its description and to have immersive experience at its heart.

### **Beliefs about immersive experience in performing arts**

In all the projects described above there had been an underlying ethos which I brought with me on taking up the Artistic Director's post. They embody the following set of beliefs about the nature of immersive experience.

*That the greatest learning happens when there is an absolute level of rigour and an absolute level of playfulness happily co-existing in the same space.*

The students work long, hard hours on these projects and structures are created to enable them to push beyond their expectations of themselves physically, intellectually, emotionally and creatively, as individuals and as a group. However, what an educational researcher who observed 'How to Disappear' was most struck by, was the amount of laughter in the room.

*That the notion of a challenge, a voyage, a journey, a risk-taking enterprise, a saying goodbye to certainties and jumping in at the deep end – is thrilling, inspiring, engagement and transformative. And that as the catalyst, facilitator, leader for the immersive experience, if you aren't thrilled, inspired, engaged and looking for transformation, the experience won't be all it can be.*

When asking visiting artists to create their Adventures for the MA, I explicitly invite them to experiment with something that is as exciting and ground-breaking for them as it should be for the students. Much of the feedback from the artists has been about the discoveries they have made and how stimulating they find the Adventure structure.

*That some kind of finishing ritual is necessary to complete the experience: whether it's something to work towards or simply something that indicates that the experience is over (that motivates people to work towards)*

And so each of the immersive experiences have a final "thing" – a performance, a talk, an open rehearsal, a presentation, a communication with folks outside the experience about the experience. Similarly the facilitator/leader/catalyst needs to ritualise the sense of beginning, of the initial gathering. This can be as simple as having a definite "welcome"/ "your mission, should you choose to accept it, is" moment with everyone who will be involved in the process gathered in the same room. When the participants walk into the room, if there's material up on the walls already, even if it's just empty pages waiting to be filled (with headings, pictures or without) or some images, or some music playing or chairs set out in a particular way, it adds to this sense of the adventure beginning. Both at the beginning and the end, the giving of objects can help this ritual – whether that's a blank notebook, an empty box to be filled, whatever might be appropriate to the project. You'll see that we'll be using objects in the short interactive sessions that we've book-ended this conference with – and that there's a coherence and a meaning to these objects and how we're using them.

*That being bold and lyrical when naming projects entices, intrigues, excites.....it marks them out as different and gives people permission to behave differently*

*That feeling that you'd achieved something at the end of a process as a group and as an individual that you couldn't imagine achieving at the beginning gives an extraordinary rush of confidence-giving adrenalin that puts you on the threshold of future possibilities like nothing else that I know.*

*That passion for possibilities is essential and the role of the leader / facilitator is to create the spaces and situations in which things can emerge and happen.*

*That if you run downhill fast enough and with enough belief, you will take off.*

## Immersive adventures

And so I set about creating experiences that embody these ideas and beliefs. I call them Adventures and I have developed two adventure-based modules: 'Adventures in Interdisciplinarity' and 'Further Adventures in Interdisciplinarity'. Each module involves a set of three Adventures: immersive two day encounters catalysed and facilitated by an eclectic range of visiting professional artists.

Very simply, this is how the Adventures work: the 11-strong student group (which includes 4 students from other arts MAs who are doing the workshops on a non-credit-bearing basis) meet with the visiting artists on a Friday lunchtime and by the end of Saturday they have created a short informal performance or an installation or a presentational pitch or a 'whatever' and people come along and take a look. The audience is always fairly intimate but is also an eclectic mix of family, friends, University staff and folk who have just happened upon the leaflets with which we publicise the events.

The Adventures are charged, experimental, unknown spaces where our students don't know that they can't do – rather than spaces where the conversation and thinking is continually framed by "what do you want me to answer/say/do/make?" Deliberately, Adventures aren't directly assessed. What is assessed is students' reflections on their experience and their engagement with it and what they say they have learnt through the experience.

A "body of evidence" is gathered to illustrate the journey of learning that the students have undertaken – they are asked to contribute to a moderated online discussion forum, to keep a Critical Incident Log, to put together a piece of research-led reflection inspired by the Adventures (this can be presented in essay or practical form) and then to undergo a final interview/mini-viva. It is on this "body of evidence" that they are assessed.

Student feedback has confirmed again and again the creative liberation that not assessing them directly in or at the end of the immersive experience engenders. Examples of feedback illustrate how these experiences affect participants.

*'Where have i been all this time? i have found this whole process of the adventures to be akin to the turning up of a light that had got somewhat dimmed in the intervening years since I was a bright young thing and going to be the 2nd female PM. I love the fact that i find myself listening, looking, moving, feeling life differently.'*

*'This semester has gone so fast and I've realised that I enjoy collaboration a lot more than I thought I did. Even simple little things ... I remember sitting at the table when we were making up haikus and needing the perfect one syllable word. As soon as the question was out of my mouth, about 3 people at once started suggesting words I could use. I realised being precious with your work or defensive over its authorship in that sort of setting is only going to work against you. The joy of ensemble art! What I've also come to realise is that this course is more of a lifestyle than a degree. Particularly over the last month, a lot of things I've seen or heard in everyday life have dominoed into a line of thoughts connected with framing a photograph, or the value of a sound, or what is signified by falling through a door. And I have to scramble to find a piece of paper so I can use that thought to get marks!! (And you thought it was to expand my mind...)'*

*'It was brilliant. I've never really been involved in any project like this before'*

*'It was an adventure in the truest sense of the word. Exploring the unknown.'*

*'Great. Scary. Really steep learning curve'*

*'scary and exciting and challenging – a really engaging experience'*

*'Drama. Challenge. All of it really absorbing'*

*'really fascinating'*

*'The level of expertise condensed and imparted in such a few hours was inspirational'*

*'working as a creative group was fantastic and the pressure cooker timeline was great!'*

*'it was a whirlwind of picking up new skills'*

*'it has been the best experience of my whole degree'*

*'I feel I have discovered a different side of me. It has helped me grow in confidence and taught me endless amounts of things'*

*'With every new day, I became more and more overwhelmed with the rehearsals; at times I felt I was going to explode with enthusiasm'*

*'This process has gone far beyond anything I could have wished for in approaching a new, unique and refreshing way of performing'*

### **A final thought**

I've often been asked by staff from other universities – and from within my own University – how I got away with naming our modules as adventures. The long answer is that I felt that I wanted the names of the modules to indicate that they were different and new, that I wanted a lyricism of description that would set the scene for an extraordinary educational encounter, that I wanted to intrigue both students and onlookers. The short answer is that, not coming through an academic route I didn't know that I couldn't name and create these sorts of spaces ( – so perhaps there is a message here for all educators) – don't really want to use this as a last sentence as it makes me sound a bit smug and like I know everything. And in fact the point I'm making is that my not knowing but being prepared to embark upon an Adventure into the unknown (as I am asking my students to do) is what's key. This job, this post, these possibilities are all a great big Adventure for me. And that's why I plan to keep doing it.



## Introduction to Appreciative Inquiry & Open Space

*Richard Seel New Paradigm Consulting and SCEPTRe Associate*

Richard is principal of New Paradigm Consulting and a SCEPTRe Associate. He has extensive experience as an organisation consultant across a wide range of sectors, both commercial and not-for-profit. He is a member of the consulting and facilitation team of the Higher Education Academy/Leadership Foundation - Change Academy, and has worked on organisational change projects in a number of universities and colleges. Before becoming an independent consultant Richard was a programme maker at the BBC. He is also an ordained minister in the Church of England and a freelance writer and magazine editor, appearing on television and radio frequently. In 2006/07 he helped the University of Surrey design its own Appreciative Inquiry aimed at identifying the best learning experiences of teachers and students.

### Introduction

Collaborative inquiries seem to have the potential for facilitating emergence in complex systems such as the social and practice enterprise that is associated with higher education teaching and learning. They have a number of features in common: they increase connectivity, enable an appropriate rate of information flow, increase diversity, help deal with inhibitors, offer clear and energising goals and provide some clear boundaries.

One of the most effective forms of collaborative inquiry so far developed is Appreciative Inquiry (often known as AI). It was developed by David Cooperrider and Suresh Srivastva (1990). The approach is based on the premise that 'organisations change in the direction in which they inquire.' So an organisation which inquires into problems will keep finding problems but an organisation which attempts to appreciate what is best in itself will discover more and more that is good. It can then use these discoveries to build a new future where the best becomes more common. The Appreciative Inquiry approach is often worked out in practice by using the '4-D' model (Watkins & Mohr 2001):

**Discover**—people talk to one another, often via structured interviews, to discover the times when the organisation is at its best. These stories are told as richly as possible.

**Dream**—the dream phase is often run as a large group conference where people are encouraged to envision the organisation as if the peak moments discovered in the 'discover' phase were the norm rather than exceptional.

**Design**—a team is empowered to go away and design ways of creating the organisation dreamed in the conference.

**Destiny**—the final phase is to live the changes.

### Why 'Appreciative'?

*If you look for problems, you will find problems;  
if you look for opportunities, you will find opportunities.*

Appreciative inquiry seeks out the best of what is currently possible in an organisation in order to help people imagine the best of what might be. The aim is to generate new knowledge which expands 'the realm of the possible' and helps members of an organisation move towards a collectively desired future way of working together.

As a method of working in organisations, appreciative inquiry differs from conventional managerial problem solving. The basic assumption of problem solving seems to be that 'organising-is-a-problem-to-be-solved.' So the task of improvement involves finding difficulties and 'fixing' them. Unfortunately, in any complex organisation you can always find problems if you look for them. The net result is that people get depressed and de-motivated.

In contrast, the underlying assumption of appreciative inquiry is not that organising is a 'problem to be solved' but rather that it is a 'solution to be embraced.' It looks to *discover and value* those factors that give life to the organisation. The challenge of valuing is to discover, for example, the commitment of the

organisation and to find out when that commitment was its highest. Regardless of how few the moments of highest commitment, the task is to zero in on these and to discuss the factors and forces that created the possibility for them.

When the best of what is has been identified, the mind naturally begins to search beyond this; it begins to envision new possibilities. Valuing the best of what is leads to envisioning what might be—creating a positive image of a desired and preferred future.

When people work together with a shared vision of a future which appeals and engages they find themselves creating that future; the high points in the work of the organisation become more frequent and a positive spirit can spread infectiously across the organisation. Job satisfaction increases and customers and clients are happier. The organisation starts to achieve its potential.

### Some Tips for Appreciative Interviewing

#### Key Considerations

1. Always state questions an affirmative way.
2. Question should build on the 'half full assumption'.
3. Questions should give broad definition to the topic.
4. When inviting an answer, presented it as an invitation by using:
  - expansive words;
  - positive feeling words;
  - locating words;
  - experience words.
5. Good questions enhance the possibilities of story telling and narratives.
6. Good questions are phrased in rapport talk not report talk.
7. Good questions are sometimes ambiguous. This is OK. They give room to 'swim around'.
8. Good questions are valuing of 'what is.' They spark the appreciative imagination by helping the person locate experiences that are worth valuing.
9. Good questions convey unconditional positive regard.
10. Good questions evoke essential values, aspirations and inspirations.

#### Tips for conducting appreciative inquiry interviews<sup>5</sup>

1. *Explaining Appreciative Inquiry:* Like anything new, appreciative interviewing may seem awkward at the beginning. It may be equally awkward for the person you are interviewing. They, too, may be caught up in looking at the organisation as a problem-to-be-solved, and may not give instant understanding to this approach. Usually, I say something like this:

Before we start, I would like to explain a little bit about what we are going to do because it may be a little different from what you are used to. This is going to be an 'appreciative interview.' I am going to ask you questions about times when you see things working at their *best* where you work. Many times, we try to ask questions about things that aren't working well—the problems—so that we can fix them. In this case, we try to find out about the things at their best—the successes—so that we can find out what works and find ways to infuse more of it into the organisation's performances. It is also like what we do with learners or athletes when we affirm their smallest successes and triumphs so that they will hold a positive image of themselves and then envision even greater possibility. The end result of the interview will help me understand those 'life-giving forces' which provide vitality and distinctive competence to your organisation. Do you have any questions?

2. *What to do with negatives:* Sometimes, people work in places they don't like. With an explanation like the one above, you can generally get them to identify things at their best. But people *should not* feel like they do not have permission to talk about things that need fixing. Depending on my empathic understanding of where the interviewee is, I handle this in several different ways—or some combination.

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<sup>5</sup> Source: Pamela Johnston

- *Postponing*: I tell them that I would like to make a note of what they have said and come back to it later. The question at the end about the three wishes for the organisation is a place to collect this 'negative' data, and you can come back to your note about what they started to say then. Be sure to come back to it though.
  - *Listening*: If they have some real *intensity* about what they want to say about problems, let them say it. If it is that 'up close and personal', you are not going to get any appreciative data until you get it out. This may mean muddling through quite a bit of organisational 'manure', and the biggest threat is that you will take it in and lose your capacity to be appreciative. You must be empathic, but remember that you cannot take on that person's pain—you cannot be a healer if you take on the patient's illness. Keep a caring, and affirmative spirit.
  - *Redirecting*: If it does not seem that serious, or if you have listened sufficiently to understand the negative issues they are raising, and they are now just into the drama of it, find a way to guide them back. "I think I understand a little bit about some of the problems you see (paraphrase a few of the ones you've heard), but I would like to guide us back to looking at what is happening when things are working at their best. Can you think of a time, even the smallest moment, when you saw innovation (for example) at its best?" If they say it never happened where they work, find out if they have *ever* had the experience in any organisation or work context *anywhere* before giving up.
3. *Using negative data*: All the stuff people find wrong with an organisation represents an absence of something that they hold in their minds as an *ideal* image. What organisational processes, if present (rather than absent) might create the ideal organisation that the negatives imply. Data is data—use it. But use it affirmatively. In fact one could argue that there is no such thing as negative data. Every utterance is conditioned by affirmative images.
  4. *The interview rhythm—starting with specific stories*: There is a rhythm to these kinds of interviews. When you start to address your topic, start with specifics personally relevant to the person interviewed. Try to get them to tell a story about "A time when you..." or "Tell me a story about a time when you..." or "Tell me a story about a time when you experienced (the topic) at its best." Probe deeply and intently, not like a dentist or a piranha going after the bait, but like an interested friend hanging on every detail. Try to find out who did what when ... and what were you thinking ... so then what did you do—like gossips over a backyard fence. What you are trying to do is get what they did (behaviour) and what they thought or felt (values) while they were doing it.
  5. *The interview rhythm—generalising about life-giving forces*: After you have heard their story, really probing it, go for the generalisations. "What is it about this organisation—its structure, values, systems, processes, policies, staff, leaders, strategy—that creates conditions where cooperation (for example) can flourish?" If your topic (i.e. cooperation) is a plant, what you are trying to do is find out about the kind of organisational soil, water, and sunlight conditions that really nourish it. Sometimes people don't know what you mean by organisational conditions, factors, or forces. Give examples: "Are jobs designed a certain way, for example, to foster cooperation? How does the culture or climate of the organisation foster cooperation?" And so on. Try your best to get them to think a bit abstractly about what is present in the organisation that really allowed them to have that peak experience with your topic.
  6. *Organisational factors*: In order to get a sense of some of the organisational factors you will be listening for, if not asking about, things like: What was the structure like? Systems? Rewards? etc. You do *not* have to systematically ask about each of these—the stories may contain information about all of them. If not, you may want to gently probe a bit.
  7. *Watch your time*: If the interview is generally planned to be an hour, you will need to make sure that as you are probing with fascination what they are saying, that you are also aware of the time. If you decide that you are learning so much that it is OK if you run over an hour, check it out with the person also. Best bet is to pace your questions appropriately to the time you have scheduled.
  8. *It's a conversation—be yourself and have fun*: If you approach the interview like a piece of drudgery—you'd rather be anywhere than with this person—you've lost before you've begun. You want to approach the interviewee as if they are a very special person, valuing the best of who they are. Be humble—for this hour the interviewee is your teacher. Be yourself —don't try to put

on some expert role or act like you've got to get every word in the interview protocol exactly right. Be a learner—realise that everyone likes to share their knowledge and wisdom with people that genuinely want to learn. If you've got an affirmative spirit going in, mistakes in wording will not stop you from getting great data. Finally, have a bit of fun. You are getting to know someone new and you are hearing some fascinating and important stories.

9. *A word about confidentiality:* Tell the interviewees they can keep their answers confidential if they wish. We will use the data, but it will be compiled into themes using data from this interview and others. No names will be associated with the overall summary or report. Stories and quotes from interviews may be used without a name associated with them.

### **Open Space**

Open Space was invented by Harrison Owen in the 1980s. It is a process which enables large numbers of people (anything from 20 to 500 participants) to engage with one another around a topic of mutual interest. The process is emergent and participative, with the 'agenda' being created on the day by those who are present.

The first part of an Open Space has people seated in a circle with a large 'open space' in the middle. Having agreed an overall topic, people come into the open space and volunteer to host a conversation on an aspect of the topic which most energises them. Hosting includes taking responsibility for ensuring that there is some kind of record of the conversation. The space remains open as long as people want to come forward and suggest conversations. The facilitator will assign a room and time for each conversation.

Conversations are then held simultaneously in different parts of the venue. Owen proposes a number of principles which express the philosophy of Open Space:

- Whoever comes is the right people.
- Whatever happens is the only thing that could have.
- Whenever it starts is the right time.
- When it's over, it's over.

In other words, don't worry about what happens or doesn't happen; it just reflects the energy and focus of the group at that particular time. If you held the Open Space six months earlier or later you would get a completely different set of conversations and participants.

In addition to the principles there is one rule, the 'Law of Two Feet'. According to Owen, this says that, *if, during the course of the gathering, any person finds him or herself in a situation where they are neither learning nor contributing, they must use their two feet go to some more productive place* (1997:98). Or, more simply: *If you are neither learning nor contributing, move on.*

Some people will stay for the whole of a conversation session (typically about an hour) while others will flit from one to another, 'cross-pollinating' the group (these are sometimes known as 'bumble bees'). Some people (often known as 'butterflies') don't participate in any of the scheduled conversations but opt out. Nevertheless they usually get engaged in profitable exchanges with other participants and can provide a useful perspective on the proceedings.

When all the individual conversations are done, it is usual to reconvene as a whole group and for reports from each group to be made available. The Open Space format is very simple and those with no experience of the process are often sceptical at first. However, the results are nearly always significant enough to convert the doubters. At the end of an Open Space (which ideally lasts for two days but can quite comfortably be accommodated in a single day) the energy is high and people are committed to taking the initiative for implementing changes.

### **References**

Bunker, Barbara Benedict & Alban, Billie 1997, *Large Group Interventions: Engaging the Whole System for Rapid Change*, San Francisco: Jossey-Bass.

Cooperrider, David & Srivastva, Suresh 1990, "Appreciative inquiry in organizational life", in Srivastva, S. & Cooperrider, D. (eds), *Appreciative Management and Leadership: The Power of Positive Thought and Action in Organizations*, San Francisco, CA: Jossey-Bass. (Also at <http://www.stipes.com/aichap3.htm>)

Reason, Peter 1994, "Three Approaches to Participative Inquiry" in *Handbook of Qualitative Research* Norman K Denzin & Yvonna Sessions Lincoln (eds). Thousand Oaks: Sage.

Owen, Harrison 1997, *Open Space Technology: A User's Guide*, San Francisco: Berrett-Koehler.

Seel, Richard 2000, "Complexity and Culture: New Perspectives on Organisational Change", *Organisations & People*, vol. 7 no. 2, pp. 2-9 and <http://www.new-paradigm.co.uk/culture-complex.htm>

Seel, Richard 2006, "Emergence in Organisations", <http://www.new-paradigm.co.uk/emergence-2.htm>

Watkins, Jane Magruder and Mohr, Bernard J. 2001, *Appreciative Inquiry: Change at the Speed of Imagination*, San Francisco: Jossey-Bass.