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Putting
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Work



The Exemplars

Putting Knowledge to Work:
integrating work-based and subject-based knowledge in
intermediate level qualifications and workforce upskilling

Karen Evans, David Guile, Judy Harris

January 2009

The WLE Centre, Institute of Education,
20 Bedford Way, London, WC1H 0AL
ISSN 1753-3385
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Design: E.Agianniotakis
Printed in Great Britain by:

Putting Knowledge to Work: The exemplars

These exemplars are part of the project 'Putting Knowledge to Work' carried out by Karen Evans, David Guile and Judy Harris of the Institute of Education, London, between 2006 and 2008. The exemplars refer to concepts, cross-cutting themes and further guidance notes that can be found on the WLE Centre Website (www.wlecentre.ac.uk)

The project has been sponsored by the London Chamber of Commerce and Industry Commercial Education Trust and the WLE Centre, Centre for Excellence in Work-Based Learning for Education Professionals at the Institute of Education. It is an associated project of the Economic and Social Research Council's Teaching and Learning Research Programme.

ACKNOWLEDGEMENTS

Many people have given time and ideas to the project. Gratitude must be extended to Project Advisory Group members John Hillier, Alan Hearsum, Michael Young, Lorna Unwin and Tim Oates – all were generous and helpful in the guidance they offered. John Hillier played a pivotal and extremely supportive role as both a Chamber Trustee and advisory group member. John Newell, Richard Shearman, Mike Flanigan and David Fudger shared their ideas of good practice with us in the early stages of the project.

Special thanks must go to our industry partners - to the programme designers, teachers-facilitators, company-workplace personnel and the students-learners-workers who were interviewed – often on several occasions – many of whom also participated in project workshops held at the Institute of Education. We would particularly like to thank Ray Flowers and Shaun Cook (KLM UK Engineering); Steve Barnes (Kingston University); Bill Whitehead and Keith Robinson (Commerzbank); Richard Bills and Christine Scheck (European College of Business and Management); Lawrence Britt, Jenny Probert, Andrew Williamson and Lindsay Springall (City College Norwich); Paul Clarke, Tony Wailey, Polly Nash and Klaus Fried (London College of Communication); Jim Lawrence (Ministry of Defence); Pat Kenrick, John McMillan and John Woodward-Roberts (International Training Service Ltd); Alan Hearsum, Eddie Goddard, Dave Fish, Bob Marshall, Peter Murray, Bryan Yule and Malcom Beresford-Dutton (Glass Industry). We are extremely grateful for the interest, energy and time all of these busy people gave to the research and the ease with which access to their practice was granted to us. Thanks must also go to earlier partners in the project especially to Paul Wallin at Kingston University and Graham Schuhmacher at Rolls Royce.

Finally, our thanks and appreciation go to Manos Agianniokatis for the commitment that he has put into designing and producing the project materials and supporting the organisation of dissemination events.

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Foreword

The LCCI Commercial Education Trust is delighted to have been able to collaborate with the Institute of Education on this research. Our grant-giving focuses on improving education and training for work in commerce and industry, and this project demonstrates important lessons in how to do this. We are particularly pleased that the research begins the process of breaking down the artificial barriers between knowledge and skill, academic and vocational and learning and practice that have bedeviled so much of the debate in recent years. The research provides a range of examples of how learning in the workplace and in the classroom can most effectively be linked, and develops a novel theoretical framework which should allow for good practice to be replicated widely. What is needed now are practitioners who are capable of taking this forward and we look to policy makers, employers and educationalists to help create and support them.

JOHN HILLIER

Trustee

London Chamber of Commerce and Industry Commercial Education Trust

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The Research

Approaches to the longstanding challenges of 'integrating' subject-based and work-based knowledge have typically focused on questions of how learning can be 'transferred' from one setting to another, usually from theory into practice.

What has continually dogged attempts at transfer is how to overcome the assumed 'abstract' nature of theory in relation to the assumed 'real' nature of practice. This is often seen as a single movement as encapsulated in the term 'from theory to practice'.

We have developed a fresh approach that concentrates on different forms of knowledge and the ways in which these are contextualised and 'recontextualised' as people move between different sites of learning in colleges and workplaces.

This new thinking is grounded in an exploration of Foundation Degrees, Higher National Diplomas, NVQ Level 5 and non-accredited workforce upskilling.

The aim has been to improve practice in work-based learning (WBL) by researching how the subject-based and work-based aspects of a curriculum or learning programme can articulate with one another more effectively. In a research field that has come to be dominated by consideration of organisational arrangements and technical issues that accompany credit and quality assurance frameworks, questions of knowledge, teaching and learning have

been relatively neglected.

Through our use of the concept of recontextualisation, we have introduced fresh thinking that can find ways into longstanding and seemingly intractable problems. All knowledge has a context in which it was originally generated. Contexts are often thought of as settings or places, but contexts in our use extend to the 'schools of thought', the traditions and norms of practice, the life experiences in which knowledge of different kinds is generated. For knowledge generated and practiced in one context to be put to work in new and different contexts, it has to be recontextualised in various ways that simultaneously engage with and change those practices, traditions and experiences.

We have explored ideas and current practices in 'putting knowledge to work' through extensive fieldwork. We identified six interesting attempts to articulate aspects of the theory-practice relation in new ways. This has resulted in the six detailed case studies (exemplars) in this volume. They show, through the concept of recontextualisation, what is involved in successfully moving knowledge from disciplines and workplaces into a curriculum; from a curriculum into successful pedagogic strategies and learner engagement in educational institutions and workplaces. Four contexts and modes of recontextualisation that are significant for this purpose are:

- the programme design environment (content recontextualisation);
- the teaching and facilitating environment (pedagogic recontextualisation);
- the workplace (workplace recontextualisation);
- the learners making sense of the whole (learner recontextualisation).

In each exemplar commentaries and recommendations show how chains of recontextualisation can be forged and the lessons that can be drawn for programme design and practice.

**Faculty of Engineering, Kingston University in partnership with
KLM UK Engineering, Norwich**

Foundation Degree in Aircraft Engineering

**A programme for career entrants that addresses a skills shortage
by meshing a Foundation Degree with professional licensing
requirements**

Executive Summary

This exemplar describes and analyses a Foundation Degree (FD) in Aircraft Engineering for aspiring maintenance engineers whose principal responsibilities will be the testing and repair of large commercial jet aircraft and their associated equipment and systems.

The FD is a university-industry partnership between Kingston University and KLM UK Engineering (a commercial arm and a college) and has been designed to address skills shortages in the industry. The FD provides a means to bridge vocational and academic qualifications and associated career pathways.

The programme exemplifies criteria that are used to sequence learning programmes that draw from science-based theoretical, technical and operational knowledge. It shows how knowledge is put to work via a principle and process of 'gradual release' from a college environment to an operational aircraft hangar.

Exemplar overview

The FD in Aircraft Engineering was amongst the first cohort of 20 FD prototypes to be developed in England during 2000 and 2001, and was launched in September 2001. It is a partnership between Kingston University and KLM UK Engineering¹.

- The School of Engineering at Kingston University achieved Faculty status in 2005 (it was formerly part of the Faculty of Technology). It offers postgraduate and undergraduate Engineering degrees and diplomas many of which are accredited by professional bodies at Chartered and Incorporated Engineer levels. It received an 'excellent' rating by HEFCE.
- KLM UK Engineering (previously Air UK) is wholly owned by KLM Air France. It consists of:
 - A commercial arm – an Approved Maintenance Organisation providing Engineering and maintenance support to KLM Air France, Aer Lingus and 'line stations' at other airports - six maintenance lines operate 24 hours a day for 365 days a year.
 - An Approved Maintenance Training Organisation (the college) approved by the Civil Aviation Authority (CAA) to conduct the 'basic knowledge examinations' associated with aircraft maintenance.

A programme based on a university-industry partnership

Aircraft Engineering for maintenance engineers is driven by a licensing system. It is not possible to practice without an appropriate licence; no company can appoint a maintenance engineer without that engineer having undergone recognised training. Since 1998 licences for these engineers have been issued under European Commission (EC) Basic Regulation 1592/2002 Part 66. Part 66 provides a common and mutually acceptable standard for the certification of maintenance engineers across European member states. The European Aviation Safety Agency (EASA)

is entrusted and empowered by law to regulate and protect the interests and safety of commercial aviation activities within Europe. All member states must complyⁱⁱ. There are three licence categories within the Part 66 licence system:

The Category A aircraft maintenance licence authorises an experienced mechanic to undertake (and sign off) minor scheduled maintenance work.

Category B licences are available in two 'disciplines': B1 (mechanical) and B2 (avionics). B1 licensed engineers can undertake and sign off the maintenance of aircraft structure, power plant and mechanical and electrical systems plus some (restricted) maintenance of avionic systems. B2 licence holders can service and sign off the maintenance of communications, navigation, radar, instrument and electrical systems.

The Category C engineer has signing off privileges pertaining to the entire aircraft. Such a licence holder has management responsibilities for maintenance.

Movement between categories requires successful completion of EASA Part 66 examinations and stipulated practical experience. The standards for licence-related approved training are stipulated in the Basic Regulation directive referred to above. The KLM College is a Part 147 Approved Maintenance Training Organisation. This means it can offer the training and examinations associated with the various licences for other airlines (on a third-party profit-making basis) as well as for KLM.

A highly regulated employment sector.

Traditionally, the industry has relied on recruitment from:

- The Armed Forces - with early retirements providing ready-made, licensed maintenance engineers for the airlines. Of late, the Services

have reduced in size and have experienced their own retention problems. Consequently this pool of engineers has diminished dramatically.

- Industry-sponsored apprenticeship programmes historically supplemented any labour force requirements that were not met by ex-Services personnel. Such programmes were licence-related consisting of approximately two years' off-the-job training and two years' structured on-the-job experience.

Great value is placed on 'home-grown' maintenance engineers. Several interviewees drew attention to this. For example: 'In my 12 years here, we've got one hangar manager - a foreman in the hangar - 12 or 14 senior supervisors - all home grown - we've got people up the whole chain now who have been trained here'. However, changes in the national apprenticeship system in the UK created problems for the industry. These revolved mainly around:

- The linkage of apprenticeships to National Vocational Qualifications (NVQs).
- The notion of core/key skills did not work well in this context because some apprentices were already relatively well-qualified (to A-level [or even first degree] standard for example).
- The workplace assessment requirements of NVQs were deemed to be unworkable in a commercial environment where time is at a premium.
- The off-the-job training requirements meant that government income had to be split with the local further education (FE) college - resulting in less overall income to the companyⁱⁱⁱ.

Consequently, the last apprenticeship intake was in 1997.

The demise of traditional apprenticeships, less recruitment of ex-Services personnel and a lack of confidence in the relevance of university-based provision presented, and continues to present, industry-wide recruitment

and training challenges. The expansion of higher education and the consequent drift of school leavers in that direction has contributed further to recruitment difficulties. Moreover, the aging nature of the existing workforce means that the industry is currently facing an unprecedented skills shortage. While the closure of car manufacturing plants provided a source of engineers for a time this has now dried-up.

An industry characterised by severe skills shortages.

It was against this backdrop that the FD was developed. Prior to the launch of Foundation Degrees the KLM College training manager spent several months seeking to align EASA licensing requirements with HNCs and HNDs (in Aerospace Engineering). This proved to be difficult because HNDs required subjects such as Aeronautics which are not compulsory under EASA regulations. Given the competitive nature of the aviation industry and a 'no frills' approach to training, providers have to offer *exactly* what the industry wants otherwise they will not secure training contracts. When the FD emerged, Kingston University saw an opportunity to integrate the EASA Part 66 B1 licensing requirements within a degree framework. This development enabled two longstanding problems to be addressed simultaneously – the 'recognition gap' between vocational and academic pathways and qualifications. The recognition gap existed because:

- Prior to the development of the FD, the professional experience and qualifications of aircraft maintenance engineers were not recognised for progression to higher education. So, although there was a regulated licensed qualification system, it was without academic recognition.
- At the same time, the traditional degree-level Engineering qualifications that were available were seen as not meeting industry needs and its strong preferences for 'home grown' engineers.

The FD acts therefore as a way for Kingston University to attract HEFCE

funding and for participants to qualify for loans.

The FD is capable of supplying trained employees to the industry in a way that is commensurate with Europe-wide registration requirements whilst also offering the option of academic progression^{iv}.

The FD is designed to attract career entrants and is advertised primarily as a link into the industry. It has a diversified intake:

- Some students enter with the standard A-levels associated with more long-standing vocational fields (in this instance Maths and Physics at Grade C [or Grade D if accompanied by other A-levels and experience]).
- Others enter with a mixed profile of NVQs in Basic Engineering, City and Guilds (2661) in Aircraft Engineering or BTECs in Aircraft Engineering^v.

Interviewees were clear that they embarked upon the course because they wanted licensed engineer status and a job. They explained that ‘the best thing about the course was that it led to a well-paid job’; ‘the B1 licence is the way into the industry’; ‘the fact that the FD was tied to the licence was fantastic’. The FD option was a positive choice even for those students who could have gone straight to university: ‘for me it was about getting a qualification that would get me a job and a lot of degrees don’t do that’.

Although at the current time the licence is more important than the FD, some graduates *do* take advantage of the academic status of the FD and do progress to an honours degree citing job-related reasons such as: position, status, looking to the future (and the possibility of a management position), moving on in the industry and so on.

The industry has clear criteria for training and training providers. The FD acts as an envelope for the EASA Part 66 B1 licence training and also provides a progression route to honours degree status.

Putting knowledge to work in the programme design environment (content recontextualisation)

The fundamental challenge that Kingston faced was to align EASA's content specification within the structure of the FD framework.

EASA superseded the Joint Aviation Authority in 1988, prior to which licensing was a national concern. It consists of^{vi}:

- An Executive Director - an engineer with a distinguished professional career;
- A Management Board comprising representatives of the national aviation authorities and the European Commission;
- An Advisory Board comprising organisations representing aviation personnel, manufacturers, commercial and general aviation operators, maintenance industry, training organisations and air sports.

The benefits of accumulated wisdom in programme design have long been recognised. In this exemplar there is a pragmatic design chain based on antecedent specifications. The derivation of syllabus contents has involved industry and manufacturer consultations and review processes over many years. Design is now undertaken beyond national borders.

The EASA Category B syllabus, thus derived, consists of 17 modules - expressed as 'knowledge requirements'. 13 of those form the syllabus of this exemplar: Mathematics; Physics; Electrical Fundamentals; Electronic Fundamentals; Digital Techniques and Electronic Instrument Systems; Materials and Hardware; Maintenance Practices; Basic Aerodynamics; Human Factors; Aviation Legislation; Structures and Systems (Airframes); Gas Turbine Engine; and, Propellers.

EASA as one of the college lecturers noted has been 'very clever in what

they've done'. They have identified 'the knowledge requirements of the industry from the subjects like Maths'. In knowledge terms:

- All Engineering learning programmes draw knowledge from Physics and Mathematics.
- The various branches of Engineering such as Aerospace are the products of further selections from Engineering for more specialised industry and manufacturing purposes.
- Most of the EASA modules draw from Aerospace Engineering.
- The Materials and Hardware module is perhaps an exception as it draws from Materials Science.
- The Human Factors module is created from selections of knowledge from another branch of Engineering:
- Human Engineering which in turn draws from Social Sciences such as Social Psychology and Human Physiology. The Aviation Legislation module is constituted from the discipline of Law.

The FD has therefore a transdisciplinary character, even though Physics and Maths are dominant.

The EASA syllabus consists of largely science-based knowledge brought into relationship with the operational demands of aircraft maintenance.

The process of aligning EASA's requirements and the FD was undertaken by senior members of staff in the Faculty of Engineering at Kingston University and the KLM College^{vii}. The Faculty of Engineering 'field manager'^{viii} referred to KLM as 'being involved from day one'. This proved to be fairly straightforward because there were good relationships and a sense of camaraderie between staff in the two institutions. This was widely attributed to their shared military, professional and industrial backgrounds: 'the people involved in the programme come from same background'. College managers referred to Kingston University people

as ‘understanding what goes on in the industry’ suggesting that this is not always the case with university lecturers.

Both partners played to their individual strengths in the alignment of the EASA and FD stipulations and in the subsequent university validation process. They described the process of putting their respective knowledge to work as ‘drawing on our worldly and life experience’.

The field manager at Kingston University took the EASA syllabus (‘a list of words really’) and ‘translated’ it: ‘I wrote EASA in degree speak’. This involved converting an EASA list of ‘things to cover’ into ‘programme outcomes’ and EASA ‘training objectives’ into ‘enabling objectives’. The same manager brokered the academic consultations within the university concerning validation. This was not always straightforward because:

- the university was sceptical about the new Foundation Degrees;
- the industry was sceptical about whether the university would keep focused on its requirements.

The field manager acknowledged that there was from time to time some conflict in terms of his responsibilities to the industry and to the university, however, he noted that the legal status of the EASA stipulations meant that there was limited scope for negotiation, thus helping his credibility: they ‘saved me in the industry’.

The KLM College manager was concerned with the commercial side of the relationship, brokering the FD proposals with the EASA authorities and with the KLM UK Approved Maintenance Organisation where the students would undertake their work-based learning.

EASA regulations for the B1 qualification stipulate a minimum of 2400 hours of learning and this was in excess of the number of hours learners need to complete to gain an FD. To overcome this potential problem, the FD credit allocation was expanded above the QAA minimum requirement of 260 credits to 300 credits. However, because EASA stipulates that

40-60% of the total course must be practical and this does chime with FD recommendations for work-based learning. The net result is that students attain the FD after a two-year full-time learning programme and the B1 licence after an additional 'two years' work experience as a mechanic^{ix}.

From the FD side, certain requirements also had to be met. The EASA syllabus does not include mathematical topics such as 'integration' and 'differentiation' because they do not constitute part of the B1 engineer's job (interviewees reported Mathematics at approximately GCSE level will suffice). However, these topics were deemed important at the FD level. Upgrading the Mathematics did not however present a problem because the EASA stipulations represent *minimum* requirements.

Differences in assessment requirements also had to be accommodated:

- EASA assessment deploys a mixture of time-constrained multi-choice questions and essays. The concern is that 'everything is tested – nothing is missed out – all the learning objectives have to be met'.
- multi-choice is not, however, seen as an acceptable mode at this level by either the QAA or Kingston University.

To attend to this, FD assessment was added to the EASA assessment and different assessment activities were introduced such as reports and presentations. This means that at the end of each module the *same* content is assessed by two methods^x. The combination is seen as working well by those concerned with programme design: 'EASA tests knowledge – the FD tests knowledge and understanding' and 'we end up with a far better engineer as a result'.

Collaborative and collegial working between two main role-players at the local level who although in different types of institution, are from the same specialist industry community. Aligning two sets of regulations is not easy. In this exemplar it is successfully attended to by extending a 'normal' FD programme; adding some content and by using both sets of assessment methods.

Putting knowledge to work in the teaching and facilitating environment (pedagogic recontextualisation)

Although Kingston University and KLM College staff members play a minimal role in programme design, they play a far greater role in this dimension of putting knowledge to work. All the managers and teaching staff at the KLM College are qualified to engineer standard with industrial experience. Most of them started their careers in the Services as apprentices thus mirroring the recruitment practices of the aircraft industry as a whole. They hold a range of vocational and academic qualifications including Open University degrees and HNDs in various aspects of Engineering (presumably gained whilst in the Services). Several had training/instructor experience in the Services or in the public further education sector upon retirement.

Instructors drawn from a shared specialist community - the industry, often the Services.

Responsibility for the *sequencing of modules* into the learning programme was of major importance to FD programme managers across the two institutions: 'We decide the order of things'^{xi}. The overall shape of the programme resembles a trapezium or a 'flat-based inverted triangle' (see Figure 1) and is structured around three categories – 'academic elementals', 'practice-based + academic elements' and 'systems and skills' elements. This model is rather different from conventional 'pyramid-shaped' Engineering degrees which start with broad, theoretical bases such Maths and Aerodynamics and 'come to a point at the top' usually in the form of 'an individual project' designed to integrate all the content and concepts that have gone before.

The 'academic elementals' (Mathematics and Science [Physics]), the 'practice-based + academic' modules (Electrical Fundamentals, Materials and Hardware, Maintenance Practices, Electronic Fundamentals, Digital Techniques and, Aerodynamics) and the 'systems + skills' modules

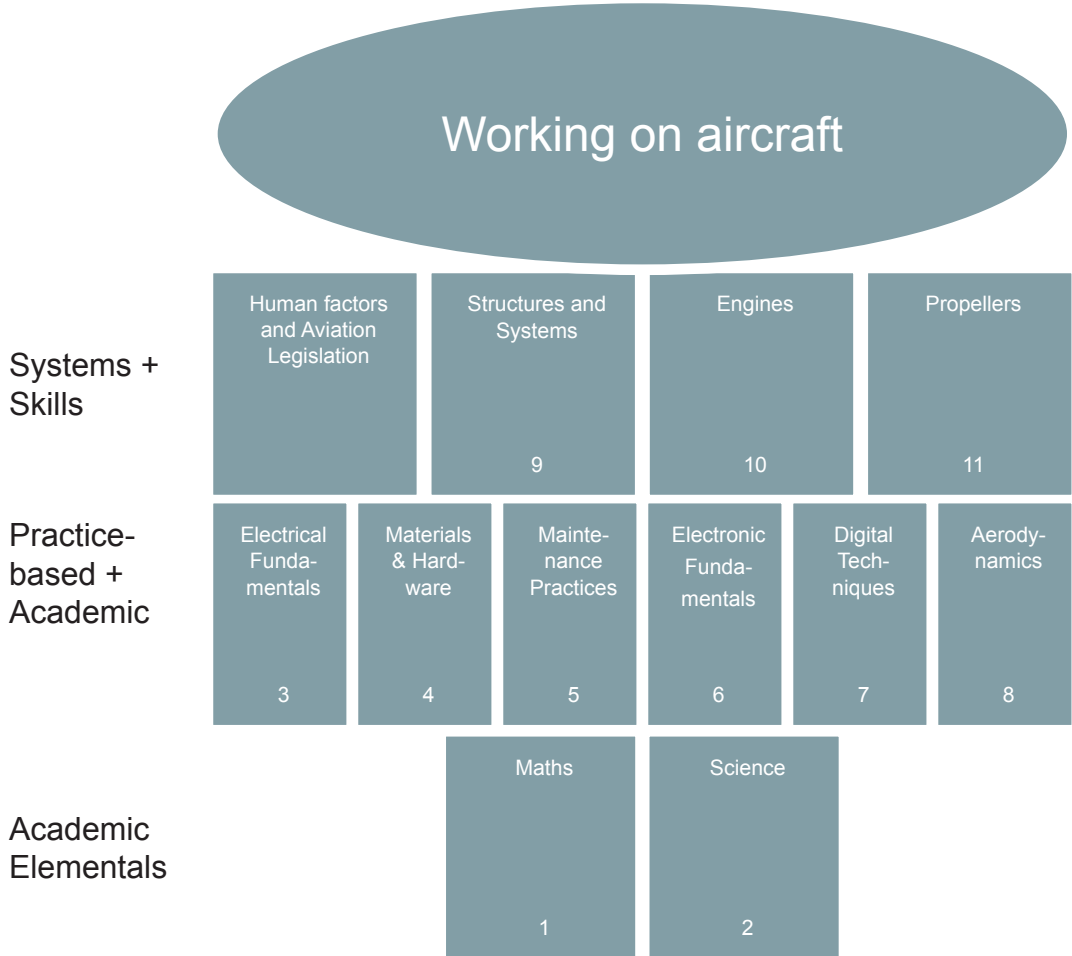


Figure 1: FD Programme Model

(Human Factors and Aviation Legislation, Structures and Systems, Engines and Propellers) are taught at the college.

The final 15 weeks of the programme are spent in an operational, practical environment – an aircraft hanger – to help learners to consolidate and embed the link the FD has striven to make between theory and practice. This is the culmination of the programme: as one training manager put it, ‘we start with a very small base (although broad) and go wider and then it gets expanded out into the larger systems at the top’; ‘all the effort is towards the top’.

The FD has an overall structuring logic which retains some features of a conventional degree whilst introducing others.

Managers and instructors were very clear about the rationales for this particular sequencing arrangement. Four rationales emerged:

- an *incremental orientation* to practice and to the aircraft: predicated on industry requirements for theory that is practice-relevant or practice-attuned. There is an imperative that knowledge is consolidated and ‘put to work’ in practice on the aircraft. Thus, ‘the top’ of the programme is different from the conventional degree: ‘we have the aircraft at the top rather than a project’;
- a *‘discipline-first’ sequencing convention*: ‘Maths and Physics have always been at the beginning of the programme’; ‘you can’t move without them’. The Mathematics and Science modules are taken to be the closest to disciplinary knowledge and ‘the most removed from practice’. They are, to quote Barnett (2006): ‘the science underlying the trade’;
- a sense of *knowledge interdependency* in the remaining modules, for example: ‘students have to use the Maths to get through the mathematical problems encountered in Electrical Engineering’; ‘Maths, Physics, Electrical Fundamentals and Electronic

Fundamentals support Digital Techniques'; 'Electrical Fundamentals is about the basic principles of electricity and is necessary to support Electronic Fundamentals and Structures and Systems'; 'Aerodynamics and Materials and Hardware are essential for supporting Engines and Maintenance Practices'. The Engines and Propellers modules 'pull in information from earlier modules like Electrical Fundamentals'. 'The Engines module involves equations that draw on the Physics and Maths modules'.

The metaphor 'support' was frequently used to describe the internal interdependency of the modules. It suggests a structural logic where parts of a construction create the bases for the rest – building upward. This was emphasised by instructors who claimed that they were trying to move away from 'modern' associations with modularisation 'where students learn a block – do the assessment – forget – learn a block etc – learn and dump' and towards approaches that enable students to 'retain what they have learnt to help with the next bit'. This suggests that modules are sequenced to allow for optimal knowledge development and integration within them i.e. are not of the independent, stand-alone, pick and mix variety.

- a safety rationale: it is not permissible in law for students to enter the operational environment before they are ready: 'We're obliged to ensure that students going into the final stage are safe and knowledgeable – it's law – it's more than health and safety - students without academic capability or a competence that we assess during the course – cannot go into that environment'. The safety obligation imposes a professional 'duty of care' on instructors and managers, not dissimilar to that imposed upon members of the medical profession.

A clear logic for the sequencing of modules. The programme introduces 'the aircraft' as an integrative space over and above the cumulative building of knowledge within a modular format. The principle 'gradual release' is used by college staff to capture this process (see cross-cutting theme: gradual release for visual representation). The result is a demanding

programme, possibly more demanding than a conventional degree which may only require knowledge building: 'students think this looks easy but in reality it's harder than a degree'.

Instructors make minor updating adjustments to module content: 'we can diversify as long as we hit the EASA points'. They reported that some content needs changing more frequently than the rest: 'working on the aircraft always changes – the systems modules change – fundamentals tend not to change very much'. The example was given of changes made in relation to 'more composites than metals being used these days' – indicating ongoing technological change in the sector.

Although EASA stipulates that 40-60% of the learning programme must be practical, it is up to providers to determine exactly how this happens. EASA also requires that 400 hours of the practical component be in the operational environment^{xii}. The balance (600 to 800 hours) is made up of various types of practical dimensions *within* the modules. Thus practical elements are concurrently as well as sequentially built into the programme with varying degrees of emphasis and varying amounts of time, depending on the module. The result is a tightly structured and timetabled full-time 30-hour teaching week within which teachers make decisions about the particular strategies and activities that are fit-for-purpose.

Within the basic methodological guidelines that are laid down by EASA: 'we decide how to teach'.

The 'academic elementals'

Mathematics and Physics are class-based modules designed to - 'get the students back up to speed'. Teachers encourage students not to rely on calculators stressing the need to inculcate a culture of estimation and 'thinking in the head'. This notion rests on teachers' beliefs that the ability to do something 'in the head' indicates that certain principles have been grasped. Moreover, they took the fact that learners reported difficulties not using a calculator 'having worked with them all their lives' as confirmation

of their assumptions. At the root of the issue is a need to ensure that students can understand and manipulate number patterns such that they always know *roughly* what the answers should be. Oversights and errors in this regard can be extremely dangerous.

One of the teachers reported that the Mathematics module is 'whiteboard-led': 'I use a regular white board to go through the problems if students are having difficulty – they do tasks and I go through answers with them'.

Students are given an opportunity to practice and demonstrate whether or not they have grasped certain concepts and principles. Where they have not, the instructor breaks down the process for them through modelling a correct answer.

The 'practice-based + academic' modules

These modules involve striking a balance between theoretical and technical knowledge and activities and include supervised practical experience in workshops or laboratories.

- In *Electrical Fundamentals*, learners work on the theory in class and then undertake practical work in a laboratory. The EASA syllabus suggests an emphasis on assisting learners to be capable of understanding generalisations and relating them to practice. An example of this is the 'theory of magnetism' which addresses the general principles (the 'why' questions) followed by the 'properties of a magnet' and the 'action of a magnet in the earth's magnetic field' which illustrate the principles in more technical terms (the 'how' questions).

In the laboratory, workplace equipment and materials (artefacts) are used. Learners might work with a computer simulator package to familiarise themselves with circuits, measurements, resistors and with fault finding. If they are in a non-computerised laboratory they might undertake experiments with meters and resistors. There is also a computer-based training system that is part-way between these

two options. It has ready-made circuit boards which are connected to a computer and learners are prompted to work through a series of questions. The same pattern pertains in the Electronic Fundamentals module although this module is supported by (and more complex than) Electrical Fundamentals.

- The *Materials and Hardware* module is also mainly class-based. It covers aircraft materials (metals and composites) and how they are fastened and the stresses they come under. This module draws on Materials Science in order to ensure learners appreciate 'why' and 'how' Science knowledge is the background of maintenance Engineering. To do so, learners are asked to identify corrosion and failure in materials.
- Building on the Materials and Hardware module, *Maintenance Practices* has some class-based but mainly practical workshop-based elements. The aim is to develop the hand skills that are fundamental to the actual maintenance job. Under supervision, students practice using tools and machinery: 'There are people there watching them and guiding them'. They undertake metal work and skin repairs, filing and drilling, bending-shaping-cutting, electrical tasks, working with precision instruments, applying fasteners and working with tolerances. Again, where possible and practicable, the instructors build in an experiential trip to the hangar to 'show them where it's applied, that helps'.

The workshop activities in this module are slightly different to the practice element in the Electrical Fundamentals module. In the latter, reinforcement and testing are the mediating devices between theory and practice, whereas in this module the mediators are skill development and trial and error learning in a sheltered context but without the time constraints and other pressures associated with a 'live' operational environment.

- *Digital Techniques* builds on Mathematics, Physics, Electrical Fundamentals and Electronic Fundamentals and is designed to develop forms of inductive reasoning about the function of such

technologies within an aircraft. The module is largely class-based although students visit the hangar and go into an aircraft cockpit. Here we see the first experiential exposure to the aircraft hangar.

- *Aerodynamics* is mainly class-based. Topics such as ‘physics of the atmosphere’ and ‘the theory of flight’ indicate deductive knowledge. There is a minor experiential element in a newly-acquired wind tunnel.

Practice elements are designed to reinforce, test and apply theoretical understandings.

The ‘systems + skills’ modules

The intention of these modules – a representative selection of which are described and analysed below - is to help learners appreciate the actual context in which aircraft maintenance occurs and the form of knowledge involved varies module by module.

- *Human Factors and Aviation Legislation* is class-based and ‘entirely theoretical’, according to the training manager, because it is concerned with analysing why things go wrong: ‘Why did the aircraft crash?’ It involves undertaking multi-faceted analyses because: ‘There’s never one single reason – always a domino effect – that needs to be analysed’.

These modules draw from different disciplinary bases and knowledge structures. In order to help learners appreciate their role and relevance, theory is taught first and then learners are ‘put in role play situations’ to develop their ability to collaboratively solve problems. Learners are also provided with a visit to the hangar in order to undertake a risk assessment on what they see there e.g. ‘that guy working on the aircraft – has he got safety shoes etc?’ In this way students evaluate practice in the light of theory – something not done before.

- *Engines* is an integrative module. It draws on Mathematics, Physics, Electrical Fundamentals, Aerospace and Maintenance Practices. As one instructor reported: ‘The Engines module is all theory-based moving from the basic theory behind engines – piston engines and gas turbine engines – to aspects of performance - how thrust is generated and calculated - how air comes in and through the engine - and the fuel systems that keep the engine running - there are some big equations in there’. Its intention is to offer learners an opportunity to consider the relation between their deductive and inductive knowledge and reasoning in relation to the problems that crop up with aircraft. Learners reported that in this module (and the Structures and Systems module) ‘it starts to come together’.

The module practices described above highlight the different pedagogic strategies that have been used to teach the theoretical and practical elements. Teachers tend to use the traditional approach of explaining and modelling concepts and principles via lectures and demonstrations and this means that, for example, in the Aerodynamics and Materials and Hardware modules, it often proved to be difficult to relate the content to practice. In contrast, in modules such as Electrical Fundamentals, which are underpinned by less theoretical and more technical and/or practical forms of knowledge, a more experiential approach is adopted and learners are asked to ‘look at something in the classroom, relate it to the aircraft, go into the lab, do some practice, write a report’.

Teachers’ backgrounds and experience play a significant role as regards the extent to which they can contextualise the theoretical and/or practical elements of the FD and make illustrative links between theoretical ideas and concepts, operational principles and practices and specific cases:

An orientation to the aircraft throughout the programme but most particularly in the ‘systems’ modules: the ‘gradual release’ principle again. Inductive knowledge (technical knowledge or practice-oriented theory) appears to facilitate putting knowledge to work but relationships between forms of knowledge are also mediated by the instructors and their knowledge - and experience-base.

'because of our industry background we can put a live situation into what we teach'; 'we put the aircraft into the theory all the time'; 'we tie in the theory in the class with practical examples and real-life applications'.

Overall *theory-practice balance* has long been recognised as a complex area in vocational and professional education and even though the FD's content is broadly pre-specified by EASA, there were different views as regards the balance between theory and practice.

Some teachers felt that there was too much theory in particular modules especially in the Mathematics module, the Engines module and the (electron theory part of the) Electrical Fundamentals module. 'Too much' seemed to mean difficult to relate to practice: 'they don't really need the Maths'; 'some theory isn't useful in terms of its application'. Correspondingly, there were many references to the need for more practice in the programme, for example: 'we're always getting feedback about lack of hand skills and not much workshop-based training within the course'. Too much theory therefore detracts from attention to practice.

It is, however, difficult to introduce more practice into this programme. The type of equipment that is ideally required is expensive and/or difficult to obtain: 'we haven't got a gas turbine, 'it's a problem to get propellers to practice on'; 'we need more planes but they are hard to come by as they get broken up for spares – we can get carcass at best - but then where to store it? We'd have to pay airfield rents'.

The long-standing issue of theory-practice balance is well-captured in the following quote from one of the college instructors: 'A big problem is that without the basic information you can't do the practical – and without the practical you can't do the whole job at the end of it'.

Putting knowledge to work in the workplace environment (workplace recontextualisation)

The organisation of the 15-week hangar phase has been refined with the each FD cohort and in response to changing patterns of work organisation in the hangar itself. It now consists of three sets of activities, each five weeks long: 'hand skills' activities, working on a 'dummy plane' and placement in the actual hangar of the commercial arm of KLM (the Approved Maintenance Organisation). Learners are rotated through these activity sets (in a 'round robin' way) preferably in the order outlined, although occasionally staff availability and timetabling logistics mean that the order has to be changed.

The 'hand-skills' stage consists of five weeks at Meteor Close, the college workshop environment where the practice elements of the Electrical Fundamentals and Maintenance Practice modules are also undertaken. Building on the Maintenance Practice module, learners are given the opportunity to develop more dexterity with tools through 'guided activities' with close supervision and coaching by college instructors (ratio 1:15). There is a necessary emphasis on making sure students have *time to practice* because 'skills take time to learn - you can't teach skills - they've got to practice them'. This is especially important for those students who do not come from a 'tinkering background' i.e. who did not develop dexterity and familiarisation with basic tools at an early age.

This is a further example of the 'gradual release' principle in operation. It represents a good strategy to ensure that students get time to practice and hone skills in a supported and sheltered environment.

The 'dummy plane' stage consists of five weeks where learners undertake skin repairs on a plane carcass ('we have planes here for them to work on – even if old'). The carcass is treated as far as possible as a 'live' aircraft, suggesting simulation-type activity. There is constant checking and advising: supervision increases to a ratio of 1:6 or 1:7. A greater element

of unpredictability is introduced into learning events. One instructor referred to ‘smacking a hole in the wing’ and turning the situation over to the learners saying: ‘you’re the engineer, what are you going to do?’ They have to ‘come up with a repair’ and do so in a way that draws on earlier modules – bringing together ‘the legislation, the maths, the stress analysis etc’. In line with workplace requirements attention is paid to recording and logging each step in detail.

In this stage, the ‘gradual release’ principle is extended to the introduction of greater degrees of unpredictability and real work artefacts into the practice environment.

In the above two stages, learners are given incremental opportunities to:

- Strengthen and develop their individual skill repertoires through extended time and exposure to tools and equipment with which they are already familiar.
- Make mistakes in a controlled, closely supervised and sheltered environment, but one that progressively resembles the workplace itself.
- Move from predictable to gradually more unpredictable tasks where some of the complexities of real-life work (and its artefacts) are built into the student experience.
- Make sense and new synergies of theoretical and technical knowledge in relation to particular operational tasks.

These two sets of activities mark a transition between the college and the operational environment. The principle of ‘gradual release’ takes the earlier parts of the course right up to the boundary with the hangar.

The placement in the hangar is referred to as ‘the bit where you get black nails’^{xiii} and as ‘the cherry on the top’ of the programme. The site Project

Manager (a senior engineer) is responsible for allocating each student to an experienced licensed engineer and/or experienced fitter at supervisor grade and/or to several engineers on a production line: 'We tend to mate-up a student with a particular engineer or production line'. Project Managers' expertise was particularly appreciated because they represent the embodiment of authority, discipline and 'duty of care' by 'controlling extreme pressures - very well'.

Hangar placement is (rightly) undertaken as a senior, strategic-level responsibility in the commercial arm of the company.

What we see in the hangar placement is a further extension of 'gradual release' i.e. from a simulated to a controlled operational environment. There is a link back into the college through an instructor operating as a 'link person' or, as he put it, 'a roving reporter' picking up informal feedback from engineers and students in the hangar. The phrase 'we tend to go through [the instructor]' was heard on more than one occasion, suggesting an active role in this regard. *Working under close supervision*, it is here that the learners become involved in overhauling engines.

Entry into the workplace is carefully and closely managed. Although students are still learning for work, they are now learning alongside experienced engineers subject to real-life time and commercial pressures.

The nature of the environment in the hangar shapes how the learners extend the relation between theory and practice. They begin to participate legitimately, albeit peripherally, the rules, procedures and realities of the organisation. The 'gradual release' principle continues: as one learner put it, 'they don't give you work to do, they don't let you straight in there'. Substantial amounts of 'shadowing', 'watching how others do things' and 'assisting' were reported.

Given that the industry previously recruited people who had a

significant if slightly different background in maintenance engineering, the FD represented a relatively new way of recruiting and developing licensed engineers and this had an initial impact on the workplace recontextualisation process. Some workplace engineers:

- felt that the FD/EASA – gradual release - arrangement had made the learning process ‘too academic’ and that this made it harder for them to pass on their knowledge and skill;
- found the loss of the internal ‘home grown’ nature of the hangar labour market de-stabilising because they experienced a loss of control over the new entrants to the hangar and as a result felt the new entrants were ‘not able to do the job’.

These difficulties with the workplace recontextualisation process gradually began to ease as the FD graduates became the new ‘home grown’ workforce as they worked their way up through the company: ‘the new university guys are coming up well’. Learners concurred: ‘it took a while for people to sort out if we were any good coming out at the end – now it’s not too bad – people are aware of the course and aware that the people coming out aren’t completely rubbish’. Acceptance as a member of the hangar community was important to the learners, one of whom was proud to announce that he had been given a nickname, signifying acceptance: ‘I got it (the nickname) when I became one of the team - I wanted a nickname - nicknames stick -a technician gave me mine’.

The hangar experience allows the learners to extend their skills through participation in a range of informal and formal activities:

- in the case of the former, one supervisor gave an example of how he simply *gave time* to students and took an interest in them as future engineers: ‘If I see them in the hangar I talk to them, ask them who they’re with, how they’re getting on - these are our people of the future’. Another supervisor recalled how he *created opportunities* to ‘get students involved’ in whatever he is doing: ‘if I’m doing some plating or working on nose-loading gear then I get them involved’. He

also emphasised involving them in the thinking behind the activities, as in: 'It's about jointly assessing the job, planning it, what tools needed etc and getting on with it'. In these ways, everyday working practices are turned into learning opportunities;

- in the case of latter, one supervisor, himself a product of the FD, drew *explicit* connections between theory and practice. He was described as 'showing us everything from getting the job passed to talking about the theory behind it'; 'for example, this morning we went over exactly what we were doing and why'. When supervisors have been through the same learning process as the learners they are particularly well placed to help to make connections between theory and practice because they have attempted to do the same themselves.

The code of practice and conduct in the workplace requires particular behaviours from the learners. *Safety and discipline* are paramount. Learners reported that for safety reasons: 'supervisors tell us from the beginning to put our hand up and ask questions'. Learners are monitored continuously in the hangar: 'I watch over the students like a hawk'. If there is the slightest doubt about competence, supervision is increased and 'we have a discussion'. *Attitude* is considered very important: 'a student can get taken off the hangar floor if the attitude isn't right'. The 'right' attitude lies somewhere between over- and under-confidence, both of which are frowned upon in the operational environment. In terms of assessment, the industry requirement is that a simple feedback form is used in the hangar. The form includes criteria such as 'time-keeping' and 'interest in the job' with space for a 'tick and a comment'. Thus, attitude, discipline and conduct are officially recorded. The disciplined use of manuals and log books was also emphasised as being of extreme importance for safety reasons.

The hangar is a new learning environment for the students. 'Gradual release' continues. Through a range of closely supervised participatory activities (some more 'pedagogic' than others), students acquire knowledge about the daily complexities, social relations, procedures and protocols of hangar life: they 'get acquainted with the pace and speed of things, the frustrations, the amount of effort that has to be put in to make the job work'.

Putting knowledge to work in the learning environment (learner recontextualisation)

The FD programme appeared to generate a strong sense amongst the learners of the *responsibility* of the job; 'lives hang on what we do; people die if we get it wrong' - a desire to - 'do the job well - a sense of *caution* - 'I'm ambitious but don't want to run before I can walk', and a commitment to *continued learning* - 'every day is a learning day, you still don't know a fraction of what's out there'.

Although FD graduates can work as mechanics in the industry after 2400 hours of study, they still require structured support as they are still learning during their two years' post-FD experience. One strategy that helps this process of on-going learner recontextualisation is to design it in accordance with the 'gradual release' principle. This means that as learners slowly encounter more and more real-world time constraints, operational pressures and unpredictable circumstances, they are able to deepen their understanding of the knowledge that they have already gained and demonstrate to their workplace supervisors that they are ready to be awarded their full B1 licenses and 'sign-off' their own work.

Congruence between the design logic and the students' experience.

One advantage of this strategy is that as learners spend more time in the workplace they gradually begin to feel that 'there isn't anything that hasn't been of use'; 'it's all background knowledge'; 'all the theory has played a part' and, moreover, they value having learnt 'the background theory about *why* because it helps you know *why* a particular part is on the aircraft'. They also recognised the value of being encouraged to engage with 'mental arithmetic': 'you need the Maths to be able to know roughly what the answer is likely to be in your head', and they endorsed the importance (for safety reasons) of being able to work without a calculator: 'It's too easy to put one to many zeros in with calculator'.

These strategies are more likely to position learners to operate in the basis of *prospective* usefulness of the theory they learnt: 'I haven't used the theory *yet* but maybe they (i.e. the modules) were needed as a foundation'. Students also displayed deference to EASA in this regard, on the grounds that if 'these things are EASA requirements' then they are likely to be useful in the future.

Congruence between lecturers' pedagogic logic and student experience – in the main. Theory-practice balance is a perennial problem. The dominance of EASA assessment reflects its dominance in the industry.

One of the issues that can impede the process of learner recontextualisation is that although an industry may be facing an unprecedented skills shortage, graduates do not always secure a permanent position. This dilemma occurred because of the newness of the FD. College managers were of the view that company HR departments do not know about the FD, even though senior managers and directors might be better informed, and perceive from a new programme sometimes felt that they might be 'a burden to the company because they couldn't sign off work'. Some unemployed FD graduates tackled this dilemma by 'putting their CVs about' to try and 'convince someone to take them on for two years'. Others cast their nets wide (to other countries) and considered working for a 'peppercorn' salary so as to get the experience.

Despite the 'gradual release' principle and cultural congruence, there is an inevitable step change as learners move from being students to novice engineers

The logical sequence and aircraft-focused nature of the instruction at the KLM College, coupled with the closeness of college teaching staff to the industry, helped to convince FD graduates that both college and KLM staff were jointly working to support their learning and development. This led

them to accept that they 'needed the Maths for Electrics' and see that the 'systems and skills' modules were cumulative with comments like 'by the last modules it starts to come together'. They also appreciated the way practical activities followed from the theory: 'They fitted well - instructors give us information and at an *appropriate time* we get the hands-on skills'.

The process of learner recontextualisation is also enhanced considerably when modules such as the Maintenance Practice module provide opportunities to develop the type of practical skills and/ or procedures that 'we use every day' in the workplace. Gearing assessment to support learner recontextualisation is not always easy though. This is partly because learners make strategic decisions as regards assessment, for example, focusing solely on the EASA exams and 'ducking out' of the FD assessments. This happened either because the latter was perceived to be relevant to a career in administration or management rather than a licensed engineer or because learners did not accept the rationale in more 'rounded engineers'.

The learner recontextualisation process is aided by the cultural synchronicity between the college and the hangar environments in that both are formal. Social relations and the division of labour (especially in the workplace) are disciplined by safety imperatives. Although it 'all seems to click into place when you see it on the aircraft', there remained a sense of a 'jump'. Learners felt that 'instructors prepared us as well as they could' but 'it's always a bit of an in-the-deep-end kind of thing', not least because 'working on a plane that you and your family could get on next week' is very different from 'working on aircraft that no-one will use'.

Commentary on the modes of recontextualisation

One of the challenges of any programme that involves work-based learning is that it involves a complex process of recontextualisation from the identification of the workplace problem the programme has to address, to the selection of the content, pedagogy, and workplace and learning environments to assist learners to develop:

- the appropriate form of practice to move into a specific vocational field;
- the knowledge base to progress, if they so desire, onto an honours degree.

In the case of the FD in Aircraft Engineering, the initial task of determining what content is selected from academic disciplines and from industry practice to develop engineers capable of identifying problems with aircraft and/or solving identified problems is undertaken by EASA. This process of 'reclassificatory recontextualisation' (Barnett, 2006) by the specialist aircraft professional body entails selectively restructuring disciplinary knowledge with regard to specific workplace technological or organisational requirements. The EASA industry licensing requirements that emerge from this process are therefore the product of analysis based on precedents from within the industry. Whilst benefiting from the accumulated wisdom of tradition, licences to practice (and their associated specifications) can often be difficult to challenge because of the authority they have accumulated over time. Their long-standing nature can sometimes render them a little out of touch with more contemporary developments in education design. In this case, however, it is the issue of *safety* that plays an important role in the content and format of the EASA specifications'.

One challenge that members of staff at Kingston University and the KLM College faced as they aligned EASA and Foundation Degree specifications was different views about the purpose of assessment. From the EASA perspective, knowledge is largely seen as information

that can be tested via multi-choice methods; from the FD perspective, knowledge and understanding need to be tested via more discursive and varied means. Rather than fighting for their respective positions, it was agreed that both types of assessment would be deployed in the hope of developing a more 'rounded engineer'.

Another challenge of the recontextualisation process is overcoming the tensions between 'vertical' forms of knowledge (i.e. scientific content) and the 'horizontal' forms of knowledge (i.e. technical and practical content)^{xiv} (Bernstein 2000). This tension arises because the former are based on general propositions and theories that accumulate in their degree of abstraction while the latter are based on more specific propositions and ideas that have a less cumulative structure.

This creates challenges for the design of curricula because the different type of knowledge structures often leads learners to feel that theory and practice are different and not related to one another. Kingston University and KLM College staff overcame this by using the four rationales – incremental, discipline-first, interdependency, and safety – to re-configure the traditional vocational – 'front-loaded' – assumption that theory should precede practice (Clarke and Winch, 2006). The trapezium design:

- prioritises teaching Mathematical and Physics content *first* in order to provide a reasonable time period for learners to a) understand the concepts and b) make connections between these concepts and teachers' experience of using them to address actual aircraft problems;
- teaches the practice-based elements that have the closest connection to Maths and Physics next by providing learners with a range of experiential situations to make connections between theory and practice;
- introduces the knowledge of the aircraft as a system next, providing learners with simulated and real opportunities to put their developing knowledge to work.

The trapezium approach differs from the front-loaded approach in a number of subtle ways. First, the principle of 'gradual release' guides the way in which knowledge is put to work in the taught, practice-based, and workplace components of the FD. It:

- influences the sequencing and teaching of modules so as to introduce key concepts as early as possible ie. in the 'academic elemental';
- informs the use of practice situations to reinforce, test and apply theoretical knowledge and the use of 'trial and error' activities in a controlled and sheltered environment;
- underpins the iterative relationships between the different forms of knowledge in the 'practice-based + academic' and 'systems + skills' modules;
- guides the flow of tasks that students work on in the hangar – as students and later as FD graduates.

A particularly clear exemplification of this principle is the first two steps of the hangar phase where learners work on their hand skills (with time to practise) and on a 'dummy plane' (where there is greater unpredictability and real-life artefacts). Simulated activities like those on the 'dummy plane' are particularly important. They provide a relatively risk-free practice zone in which tasks can be structured according to 'degrees of predictability' (Aarkrog, 2003) to allow learners to draw explicitly on the concepts they were introduced to earlier in the course in order to address specific practical problems.

The main challenge that teachers and workplace supervisors face is to use these situations to nurture learners' 'informed perception' (Aarkrog, 2003), that is, their ability to notice 'degrees of sameness' and difference between the learning situation and the (simulated) practice situation. This helps learners to appreciate the expected manifestations of some of the underlying abstract mathematical and physics principles they have already learnt.

In addition, it paves the way for learners to begin to 'progressively recontextualise' (van Oers, 1998), that is, apply their diagnostic skills to situations that are similar to and different from the original situation as they gain more experience working on actual aircraft. There is never an exact 'match' between situations and the challenge for tutors is to ensure that learners have as ample opportunities to try out their diagnostic and repair knowledge and skills so they become confident in confronting workplace manifestations of the problems they have encountered in the classroom (Lobato 2003).

The principle of 'gradual release' also informs workplace and learner recontextualisation in the hangar phase. Learners are allocated to supervisors and undertake shadowing and other incremental activities before being allowed to assume any responsibility. A college instructor acts as a link person on the college-hangar boundary to further facilitate gradual release. Despite this support and 'scaffolding' (Brown 1993) 'gaps' continue to surface because the context has changed.

The new arrangements associated with the FD meant that some of the traditional ways of supporting industry entrants had to be reworked. New types of workplace environment effects and arrangements had to be developed to assist new cohorts of learners swiftly to gain access to, and put their knowledge to work within, workplace (including tacit understandings) that have built up historically, socio-culturally and organisationally (Fuller and Unwin 2004).

For example, one strategy that was adopted by some supervisors was to pose 'why' questions. Such questions help learners recontextualise their existing knowledge within the culture of a workplace. In doing so, they articulate their understanding and skill in ways that are meaningful to them *and* their work colleagues (Guile 2006) and, in the process, develop a vocational identity. Such practices serve to further the 'gradual release' process, through the mechanic phase to the point where the new entrants attain the status of licensed engineers and the authority to sign off their own work.

Recommendations

It is important for anyone seeking to replicate this model to appreciate that it is based on a number of very particular and context-specific ways of putting knowledge to work.

To develop a coherent learning programme in a context characterised by aligning a FD to existing professional licensing requirements, it is helpful if:

- the concerns of industry have been identified by experienced professionals and expressed in the form of statements and/or specifications about theory and practice;
- partners in the design process possess industry and higher education experience, respect each others' backgrounds and share common values about the importance of balancing both concerns within a programme.

Roleplayers use the above to play to their respective strengths in terms of the various activities that constitute design and validation and ensure that:

- antecedent licensing specifications are used as a resource from which to develop an understanding of the knowledge logics deployed within them and why they have developed in the ways that they have;
- there is a shared rationale for why different types of knowledge, skill and practice-based experiences are included in the curriculum;
- some of the challenges that the inclusion of vertical and horizontal forms of knowledge generate for vocational programme development are taken account of e.g. the move to generalisation and greater abstraction in the former;
- the logic(s) for the sequencing of modules in the programme is/are agreed and articulated – in this case a process of 'gradual release' to the aircraft plus knowledge-related logics i.e. a discipline-first

principle and a cumulative principle;

- the FD serves as a bridge for academic and vocational development;
- the flexibility in programme/qualification specifications (in this case the EASA and FD specifications) is explored and maximised to enhance their compatibility, for example: minimum requirements that can be exceeded; language conventions that can be reworked etc;
- assessment satisfies the knowledge and practice requirements of the two sets of specifications in ways that do not overburden the learners.

To convey the purposes of different types of knowledge *and* to support learners in using all forms knowledge resources to ensure safe and professional practice, it is important to utilise the principle of 'gradual release' in a wide variety of ways. To:

- support learners to personalise their understanding of concepts in terms of their disciplinary purpose and their practical/operational efficacy;
- value and actively deploy the instructors' industry knowledge and experience as a means of drawing connections between types of knowledge;
- be sensitive to different pedagogic approaches that may need to be used to teach vertical and horizontal forms of knowledge and to consider how to relate them to one another;
- intensify the sequencing of programme activities towards the 'live' environment by providing more opportunities for learners to: strengthen and develop their individual skill repertoires through exposure to tools and equipment; make mistakes in a controlled, closely supervised and sheltered environment, but one that progressively resembles the workplace itself; move from predictable to more unpredictable tasks;
- develop a range of simulation-type activities where theoretical and

technical knowledge can be adapted, consolidated, applied and re-viewed in relation to operational demands. Consider how far simulations could be set up to support learners to appreciate how different forms of knowledge come together in work practice;

- enhance the teaching environment by using work artefacts (such as manuals and log books) to provide points of articulation between forms of knowledge. They can be used to involve students in structured reading and writing in relation to the job, requiring them to link concepts and skilled performance^{xv};
- provide learners with feedback on their progress and tailor that feedback to workplace criteria and academic criteria.

To ensure that the move to the workplace is as smooth and swift as possible, it is helpful to consider:

- senior manager overview of and involvement in placements;
- the extent to which the workplace environment may have to change to support the placement process;
- the length of time it takes for a new qualification to become known and part of industry thinking;
- processes that assist learners to make connections between forms of knowledge and practical experience;
- the range of informal and formal 'invitational' opportunities e.g. mating-up, close supervision and feedback, posing 'why' questions, de-briefing sessions that assist learners to develop the confidence and judgement to put knowledge to work; and,
- that putting knowledge to work involves changes in identity as well as knowledge and skill.

Finally, it is essential to recognise that the success of the above processes is only partly based on design, teaching and workplace experience. It is also based on:

- the learners themselves who are active and motivated to learn in order to enter and succeed in this particular employment-labour market.

Endnotes

ⁱOther partners are also involved: City of Bristol College, Newcastle Aviation Authority, British Airways Plc (Heathrow). This exemplar is concerned only with the Kingston University-KLM partnership. Some of the partnership FDs are run on split sites (usually the first 14 weeks at the university).

ⁱⁱRepresenting the interests of European member states and the European Commission, EASA acts as a regulator of the aviation industry: a 'neutral and independent decision maker' – 'free from all political interference'. The Civil Aviation Authority (UK) is the *national* competent authority empowered by Parliament to enact EASA regulations and issue licences on its behalf.

ⁱⁱⁱInterviewees linked this to a change in industry culture more generally – towards a greater inclination *not* to invest in training. Companies traditionally funded their own schemes. When the government became more involved, companies began to see apprenticeships as 'money-making schemes'. Consequently, apprenticeship schemes became increasingly funding-dependent and ceased when the funding stopped.

^{iv}There are of course other ways to gain licensed status: via self-study or direct Pt 66 training or via a City and Guilds programme (CG 2661). What distinguishes the FD-EASA alignment is the possibility of progression to honours level.

^vGenerally speaking, if qualification levels are too low entrants are directed to the Foundation year zero course.

^{vi}See <http://www.easa.eu.int/home/images/EASAorgstructure.pdf>

^{vii}At the time this programme was designed there were few FD frameworks or QAA benchmarks.

^{viii}It is interesting to note the continued use of Services designation suggesting a primary identity.

^{ix}It may take longer depending on the number of 'resits' students have to do – a five year time period is allowed.

^xThis was a college decision. Other FD partners (see endnote 1) do it differently.

^{xi}Although the numbering of the EASA modules is also suggestive in this regard.

^{xii}This is the 15 weeks referred to earlier.

^{xiii}Most students are placed in the KLM hangar although a few 'out placements' are arranged with companies supportive of the FD. Placements of whatever kind are an important potential link to employment for the students.

^{xiv}We have simplified the distinctions between 'vertical' and 'horizontal' knowledge 'discourses' and 'structures' that Bernstein (2000) formulated by using the phrase vertical and horizontal forms of knowledge. This has enabled us to use his general point about the difficulties associated with combining different types of knowledge into a coherent curriculum to explain the challenge associated with our four modes of recontextualisation, without having overly to distinguish between types of vertical knowledge.

^{xv}Artefacts and the connections they facilitate are referred to in various ways in the literature, for example, as 'reifications' or 'nodes of practice' that connect two (or more) 'communities of practice'. The process of working with artefacts is seen as producing a 'connective' form of knowledge which Boreham et al (2002) refer to as 'work process knowledge'. There was an interesting example of an activity that *prepared* students for using log books. The 'How to Boil an Egg' activity required

students to 'think logically' and identify about 80 procedural steps in boiling an egg. The activity illustrates how easy it is to 'take things for granted' by assuming that 'I know what I mean'. Missed documentary steps can spell disaster in aircraft maintenance especially in complex tasks involving the use of several manuals over a number of days: as the instructor concerned put it, 'written, itemised communication is vital – of each step – so that the process can be reversed to put the plane back together again - that's why the industry is hot in logical thinking processes'.

Glass Training Ltd in partnership with companies in the glass, fenestration and automotive glazing industries

Management Development in the Glass Industry

A programme to accredit and extend senior managers' expertise

Executive Summary

This exemplar describes and analyses a customised management programme for senior personnel in the Glass industry. It is a particular expression of demand-led training which exemplifies: 1) a process that meshes with the character of the industry and the needs of a particular group of managers (the upskilling and certification needs of experienced managers who have worked their way through company ranks along a traditional industrial pathway - often entering the industry straight from school); 2) a potential role for employer bodies in mediating between industry and further and higher education so as to design a learning process that uses NVQs as more than certification exercises; 3) the nature and value of skilled facilitation (based on a combination of industry and academic expertise) and finally, the efficacy of NVQs as entry routes into more formal learning opportunities.

Exemplar overview

The two main functions of the Glass industry are: (i) manufacturing - companies convert raw materials into glass which is then formed to produce containers, flat glass, fibres, and tubes and so on; and, (ii) processing - the shape and/or properties of manufactured glass are altered by cutting, grinding, polishing, decorating, toughening, laminating, assembling and other glass-working practices. Glazing and fabrication fall into this category i.e. the making and installing of domestic and commercial glazing products. A very wide range of products is manufactured and/or processed:

- Flat glass: this part of the industry (driven by demand for building and automotive glass [windscreens, sunroofs, security glass for cars, trains and planes etc]) has, over the last 20 years, achieved an average growth rate of approximately 5% per year. It represents the second largest sector in the UK industry.
- Fibre glass: there are five fibre glass manufacturers in the UK. Fibre has over 40,000 different applications, including reinforcement of plastics and rubber, electronics and wall coverings. A 3-4% growth is forecast.
- Scientific and special glass: for the medical, chemical, scientific, ophthalmic, defence, lighting, perfume, cosmetics, gift and research industries. Products include spectacle, camera and telescope lenses, fibre optics, scientific instruments, laboratory equipment.
- Glass containers: bottles, jars, flasks, bulbs etc for the drinks, food, pharmaceutical, cosmetic, medical, lighting and chemical industries. Containers account for around 64% of all UK glass production: the largest sector of the industry.
- Domestic and tableware: ovenware, drinking glasses and giftware. Several small manufacturers producing giftware from either lead crystal or common soda-lime glass.

The production of containers for the food and drinks industry, glazing in construction, and the automotive industry are growth areas and account for approximately 90% of the glass manufactured and processed in the UK

Given this diversity, the range of companies varies enormously, from multi-nationals to local, family-owned businesses and, moreover, like all industries, work practices are changing as companies continuously adapt to a competitive and changing external environment and labour market. Whilst some retain traditional modes based on specialised technical skills, others companies adopt new forms of work organisation including cross-boundary communication and team work. The Investors in People award is a common benchmarking standard in the industry and nearly all organisations use BSEN ISO 9000 as a measure of quality. Bigger companies have research arms and robust links with academia thereby playing an important role in knowledge production for and in the industry.

An industry characterised by great variety in company function, size and associated work practices.

An annual investment of £6 million per year indicates that the Glass industry is committed to training. The imperative to train (or to formalise and benchmark informal training and learning) is growing – in line with technological change, change in markets, legislative changes in the external environment (health and safety, emissions, and so on) as well as government targets. However, as with all companies, glass companies need to balance investment in training with productivity outcomes.

Most entrants to the operational side of the industry come via Engineering-based apprenticeships linked to qualifications at NVQ Levels 2 and 3. Customised programmes are often developed by, for example, adding Engineering units to a Glass Processing NVQ for a machine setter, or by adding Customer Service units for an employee working at the public interface. Over 1000 apprentices join the industry every

year and The Vocational College acts as a national training provider of apprenticeships to the industryⁱⁱ. Some Level 3 apprenticeships exist, incorporating HNC/Ds in Electronic or Mechanical Engineering or City and Guilds courses in Glass Manufacture, for example. Individuals trained to Level 4 in this or related ways are referred to as ‘professional engineers’ – a level that meets the skill requirements of many companies – and larger companies train their own engineers through, for example, Engineering Development Schemes. Graduate recruitment is also common practice in the big companies. Graduates with upper seconds or above in Science or Engineering are offered high-status packages that include mentorship, career experience and development, exposure to the (often international) company environment – all hopefully leading to permanent positions.

Type of job within the industry	NVQ Qualification
Replacing and repairing damaged windscreens and vehicle glass	Automotive Glazing: Level 2 or 3
Installing and/or surveying windows, doors, curtain walling and conservatories	Fenestration Installation: Level 2; Fenestration Installation and Surveying at Level 3
Controlling raw materials for glass making, operating glass-making equipment and forming glass products	Glass Manufacturing: Level 2 or 3
Processing glass e.g. cutting, machining, blowing, treating, decorating	Glass Processing: Level 2 or 3
Making frames for windows, doors and conservatories	Production of Glass Supporting Fabrications: Level 2 or 3

Figure 1: Adapted from: GTL Data Sheet 2, June 2006ⁱⁱⁱ

There are many approaches to management training. Some companies employ the NVQ route, especially when managers are experienced and 'home-grown'. Others link management development to professional qualifications offered by the Institute of Leadership and Management (ILM). Larger companies such as Pilkington have their own in-house approach drawing on the services of local universities. There is a growing tendency to appoint professionally qualified people into management roles rather than the more traditional practice of relying on the internal labour market to provide local talent. Glass Training Ltd (see below) developed an MSc in Glass Technology and Management with the University of Sheffield and Sheffield Hallam University^{iv}. Some managers have undertaken Certificates and Diplomas in Management Studies or MAs and MBAs in institutes of higher education.

A challenge that has been recognised is how to bridge the growing status gap between 'home grown' managers and graduate appointees.

The UK Glass industry is served by a range of organisations:

Glass Technology Services researches, designs and develops materials, equipment and products and offers technical advice and consultancy to the industry;

British Glass is a trade confederation that represents the concerns and aspirations of its members to the Government and the European Union;

the *Society of Glass Technology* is a non-profit organisation of groups of people interested in the production, properties or uses of glasses, whether from a commercial, aesthetic, academic or technical viewpoint;

Proskills is the *Sector Skills Council* for the building products, coatings, extractives, glass and print industries. It has a Sector Skill Agreement that outlines required workforce skills to develop and how these will be supplied.

The glass industry has a long and rich history in the UK. It is a traditional, manufacturing industry now interfacing with global markets and international competitors.

The organisation that is the focus of this exemplar is a UK-wide employer organisation *Glass Training Ltd* (GTL). It is a non-statutory, membership-based body of company directors. The Chief Executive Officer (CEO) referred to it as 'experimental' and 'philanthropic' in orientation. Education and training are its main concerns. It offers advice and support to companies in: the development of technical and managerial training programmes, the coordination of training activities and in the education and training dimensions of workforce development. It hosts an annual conference and produces publications, fact sheets, training materials and a newsletter called *Glass Reflections*. Awards ceremonies function to promote the learning and attainments of the industry.

GTL has a particular philosophy. It prides itself on its independence from government and on its direct relationships with employers and companies. It is entirely committed to a voluntary approach to training and very opposed to any possible reintroduction of statutory training levies. To this end, the organisation is committed to help employers to find ways to invest in their workforces on their own terms, rather than 'be forced into an arrangement that will not work' (*Glass Reflections*, August 2006).

GTL promotes workplace learning at all levels and across all company functions. There are several principled strands to its position in this regard:

- workplaces are learning environments;
- work produces valuable learning (mostly informal in nature);
- companies need to be supported in harnessing, managing and developing this learning and knowledge for the benefit of business performance and individual employee development.

These principles prioritise workplace experience over off-the-job training

as the locus of learning and workforce development. This is partially because GTL appreciates that taking people out of the workplace for protracted periods of time creates problems for (particularly smaller) companies. Moreover, experience has shown that the more mature and experienced workers (or managers) especially those who entered industry straight from school prefer this form of support to off-the-job training.

In addition, GTL helps educational institutions and training providers develop ways of working more constructively with employers. This might involve guidance on reorienting college programmes so that they are more appropriate to industry needs. Glass Reflections cites an example of NVQ Level 2 in Performing Manufacturing Operations when the most appropriate qualification for the industry is at a higher level in Glass Processing. It also encourages educational institutions and training providers, especially colleges, to explore new ways of delivering learning to non-traditional learners based on their concept of a 'learning pathway' - an individualised employee development agenda that 'integrates the needs of business with the needs of the individual' by combining workplace experience and workforce development requirements and blending this with flexible further education delivered at a distance.

The Glass industry benefits from the brokerage role of GTL. GTL is uniquely placed to represent the interests of the glass industry and to offer education and training support.

The NVQ Level 5 in Management in the Glass industry has been customised by GTL to meet the particular needs of experienced managers. GTL contracts with individual companies in this regard and to date, about 100 managers have qualified in this way. Learner-managers interviewed for this project were drawn from the following companies:

- *Owens-Illinois (O-I)* is the largest manufacturer of glass containers in the world. Its market share of the global industry is 60%;
- *AC Yule & Sons Ltd.*, a third generation family business with

five factories in Scotland and England. Its main concern is glass processing and glazing;

- *National Windscreens Replacements Ltd* - a holding company for fifteen companies engaged in automotive glazing repair and replacement with 123 branches across the UK;
- *S Murray & Co Ltd.*, is a family business founded in 1915 that focuses on medical and laboratory glassware.

The three managers interviewed from the O-I Harlow plant were apprenticed to the company from school, working their way through supervisory roles and shift management positions to heads of department over a 20-year period. They reflect the prevalence of a strong internal labour market in the sector. Strong internal labour markets can lead to skill gaps. The managers reported that ‘the skill level of the plant is far superior to what it was 25 years ago’, and had personally experienced a need to upgrade themselves to operate in a wider geographical context: ‘I was over in France last week’; ‘we suddenly have to start interacting with people who we would have seen as our competitors’; ‘we have to change our thinking now we are working in a global market’. These managers are working in an international context with industry partners who value and possess formal qualifications.

The managing directors from the other three companies also entered the industry straight from school. Their motivations for undertaking the NVQ ranged from ‘getting a feel’ for how NVQs operated to set an example and motivate their existing employees and new recruits to train by ‘leading by example,’ to motivating employees to undertake training voluntarily and give them ‘status as glass technicians so they would feel they had something to lose if they left the industry’.

These learner-managers have worked their way through their companies, often self-taught. Their different motivations for wanting to gain the NVQ qualification are testimony to the wide-ranging demand for such an opportunity.

Putting knowledge to work in the programme design environment (content recontextualisation)

The NVQ Level 5 in Management is intended for senior managers and leaders (across all employment sectors) who are responsible for the control of activities and work output of other managers and for improving organisational performance, providing leadership, encouraging innovation, developing a strategic business plan, managing risk and workforce planning.

The Management standards were developed by the Management Standards Centre (MSC) the government-approved standards-setting body for Management (and are approved by the Chartered Management Initiative). Like all NVQs, the qualification is competence-based i.e. linked to the performance of a range of tasks connected with work and 'based on the functions that managers undertake in the workplace'. It is based on National Occupational Standards which describe the level and breadth of performance expected in the industry from the perspective of key employers. What distinguishes the NVQ approach to vocational and professional development is the way in which standards are expressly occupationally-driven (i.e. designed around the logic of job hierarchies and functions).

This logic is evident in the titles of the units. To achieve the full award, candidates must complete seven units:

- mandatory units are: Provide Leadership for your Organisation; Encourage Innovation in your Organisation; Ensure an Effective Organisational Approach to Health and Safety, and, Improve Organisational Performance;
- optional units include: Manage your own Resources and Professional Development; Develop your Personal Networks, and, Develop a Strategic Business Plan for your Organisation.

The specification for each unit consists of skills, outcomes of effective performance, behaviours and knowledge and understanding. The latter is divided into *general*, *industry-specific* (i.e. any particular industry requirements that impinge on the general knowledge and understanding) and *context-specific* knowledge and understanding (i.e. company-wide systems and procedures).

Knowledge tends to be viewed as embedded in competence and inferable from it. For this reason, the main principles for recontextualisation are the notions of 'how' and 'what', rather than the traditional academic principle of 'why'. For example, with reference to Unit A2 'Manage your own Resources and Professional Development', the *general* knowledge and understanding includes: 'The principles that underpin professional development'; 'The range of learning style(s) and how to identify the style(s) that work(s) best for you'; 'How to evaluate your performance against the requirements of your work-role'^{vi}. This places an emphasis on the importance of procedural and informational rather than propositional modes of knowledge. The *industry-specific* knowledge tends to revolve around understanding 'requirements' as in: 'Industry/sector requirements for the development and maintenance of knowledge, skills and understanding and continuing professional development' – again a valuing of knowing 'what'. The *context-specific* knowledge is similarly concerned with 'the what' but at the company level, for example: 'The vision and objectives of your organisation' and 'Reporting lines in your organisation'.

The NVQ process involves a candidate planning a programme of development and assessment and compiling (usually) a portfolio of evidence or some other cumulative assessment record to prove competence. A certified assessor needs to be satisfied that evidence is available for all the skills, performance, behaviours and knowledge that comprise the national standard. Evidence is commonly drawn via work products, observations, questioning, professional discussion, witness testimonies and personal statements.

NVQ standards are derived from work performance. The method of standards derivation means that NVQs have not inherited the knowledge-related structuring principles of conventional vocational and professional programmes (to varying degrees).

GTL entered into an agreement to become an NVQ assessment centre for the Oxford, Cambridge and Royal Society of Arts (OCR) awarding body on the basis of an approach that differs from conventional NVQ practice in several ways. Most particularly, it is contextualised to the Glass industry environment. It is 'paperless': as the CEO of GTL put it, the industry itself is also relatively paperless. Mindful of the dangers of generalisation, he reported how the strengths of many top people in the industry (especially those who have worked their way through companies) lie in their visual imaginations and their verbal reasoning capacities, rather than in formal writing skills: 'by and large people in manufacturing aren't writers'; 'you'll never get that depth of really good essay writing because of their verbal skills – but they've got a tremendous amount of knowledge'. One of the manager-learners bore this out by referring to himself as being more 'much more adept at talking than writing'.

The other rationale for a paperless approach is a view that written assessment detracts from what learners actually know and might come to know by sending them on a trail of 'quasi-paperwork'. One of the company managers who undertook an NVQ Level 5 before it became paperless noted how although the standards referred to strategic management, it was his computer and indexing skills that developed the most. Evidence gathering can thus be seen as a weak pedagogic practice with often unintended outcomes.

In the light of the above, learning pathways are developed on the basis of the learner-managers work (and individual) priorities (and the two are often synonymous given their positions in their companies). Subsequently, 'learning conversations' replace portfolio development and the facilitator acts as evidence gatherer. In his own words: 'all it needs is for someone to gather than knowledge for them and put it into a qualification'.

An innovative customised NVQ programme for experienced managers, tailored to the culture of the industry and company life - work-based, paperless and supported by learning pathways and learning conversations. An approach that seeks to build on and go beyond conventional NVQ practice.

Putting knowledge to work in the teaching and facilitating environment (pedagogic recontextualisation)

The GTL facilitator has a Masters' degree in Management and an EdD in the field of Workplace Learning. He also has experience of workforce development and training at all levels of the Glass industry and is familiar with many of the individual companies in the sector. He therefore brings a vast amount of professional, technical, academic and situated-local knowledge to his work as facilitator.

A facilitator from the same community of practice as the manager-learners.

The main characteristics of the GTL facilitation process can be summarised as follows:

- *Scene setting* based on open discussion between the facilitator and individual learner-manager about changes that are needed in the company i.e. around business objectives.

In this way, the candidate selects a concrete experiential starting point: 'a genuine experience that motivates them as managers'. The facilitator deems it important that individual improvement and business improvement are interlinked in the learning pathway referred to earlier. These discussions guide the two of them to select units from the NVQ suite.

- *Knowledge identification* based on the facilitator taking each of the seven units that make up the NVQ in turn and asking for company case study material via questions such as 'where have you done this?', 'what sort of work are you doing?' or 'where does this happen in your company?' He describes himself as committed to building on successes rather than learning from mistakes.

The aim is for an individual's learning pathway rather than the standards to lead the process. There are some work-based observations where the

facilitator may sit in on managers' work e.g. daily production meetings - in which case he would check agendas, associated paperwork, the structure of the meeting and the individual's role within it.

- *Learning conversations to initiate the reflective process.* These conversations are planned in advance, conducted face-to-face or on the phone, and often take place out of the main flow of the day, for example at 8am for ½ - 1 hour. All observations and learning conversations are taped so that the facilitator can conduct his assessment on the basis of them.

The aim of these conversations is to encourage the managers to make their implicit or tacit knowledge (i.e. procedural and technical knowledge) explicit because managers are rarely required to consciously articulate this knowledge nor to reflect on how they learnt it or how it may need to be supplemented. This is a time-consuming process because learners are being asked to recall the 'knowledge they have *absorbed* from activities'. It is based on a process of managers being stimulated by the facilitator to (re)surface their learning, via reflective processes enabling them to 'draw from memory what they know' because 'they disturb the indolence of the brain'.

- *Learning conversations to deepen the reflective process* based on extensive probing and questioning. Questioning is a central strategy: 'it's the questioning that puts them on the spot'. So, for example, 'they think about what they do'; 'they reflect on what they already know'; 'they explain what they already know and can do'. Reflection is gradually extended to encompass performance: 'I follow through what the candidate is saying to see how they have used their knowledge to make things happen'.

As the Owens-Illinois managers noted: he asks 'how' questions, 'he wants to know how we handle things, how we plan, how we got tasks achieved'. For example, a real-life incident such as an accident on a production line stimulates questioning along the lines of: How did you investigate it? What forms did you use to report it? Questioning also extends to 'why' ques-

tions: 'he wants to know what's behind what you're speaking about'; 'I want to see if there is any depth of knowledge' and so on. The facilitator sees this type of questioning as 'structuring' experience.

An important aspect of questioning involves the facilitator finding points of intervention: as one of the learner-managers put it, 'he lets you go on talking – "talk to me" - and then he'll haul you back and say "right, I'm interested in what you had to say about that - tell me more" - he never stops your flow - then all of a sudden, you'll come up with something and he'll say "stop you there, now start to talk to me about that...why did you do it - how did you do it?"'. The facilitator referred to the same process as deepening the conversation by using a rhetorical question-statement such as 'that is really interesting...' The process is not entirely one-way – there is a sharing of experiences between facilitator and candidate. Deepening the conversation involves 'moving up a gear'. By this the facilitator means extending experience in a 'systems thinking way' so that it can be used to solve broader concerns, issues, problems in operational and strategic organisational life.

Various other terminologies are used to refer to this experience-led pedagogic process: professional discussion, supervision, deliberative discussion, mediation, mentorship, supported reflection. It is an excellent example of strategies that build on individuals' experiences of work.

The primary aim of the learning conversations is to facilitate a retrospective recognition of managers' prior learning - the facilitator was of the view that about 80% of the process was concerned with this – and a prospective articulation of new knowledge. According to the facilitator the learning conversations generate around '20% new knowledge'. The main difference between GTL's approach and most other training providers is that it treats NVQs and the occupational standards as 'disturbing the existing pool of knowledge' and as 'a mechanism to get learners to think about what they do and how they can learn to do things differently or in different

ways', rather than being an end-point. This means that the standards are both a certification base and a starting point for changing and improving work practice.

It is of great importance to the facilitator that some of the perceived inflexibility of occupational standards is overcome by adding a developmental dimension to them.

- *Development of new knowledge* occurs in much the same way as surfacing prior knowledge through questioning as well as guided activities and perhaps more observation. The facilitator reported how in his view: 'new knowledge is created by the candidate thinking of how they can advance something from the knowledge they already have' for example 'how would you relate x to y situation?' The facilitator makes suggestions: 'just have a look at x before you do y'; 'how about next time you try *this*?'; 'go and talk to a manager about x'; 'go back and have a re-look and make sure you got that bit right'; 'talk to someone in a university' (i.e. tap into theoretical bases); 'what would you do differently another time?' The new knowledge builds on existing knowledge and is used to solve new and different problems: retrospective moves to prospective.

There is an important temporal dimension to the above. The time between learning conversations allows learner-managers to reflect further. Subsequent conversations provide opportunities for the facilitator to 'see if anything we have discussed has moved from ideas into thought, knowledge, planning, action or change'. He can also check the development of high-level generic skills such as investigation and problem-solving techniques and the extent to which the learner-managers 'are getting into the habit of managing their own facilitation of learning – learning to own one's own learning is in itself a learning process'.

For the facilitator, the process moves along a seamless and iterative developmental continuum from talking → conversation → discussion → dialogue → discourse → deliberation.

Assessment is a continuous and integral part of each learning conversation. The NVQ standards are in the back of the facilitator's mind throughout and he regularly recontextualises the generic statements contained in the standards descriptions of competence to enable him to ask questions to frame or build up an 'evidence picture: 'I see it as a picture being painted - I have some detail of the sky but am not sure if it is windy because I cannot see the trees – metaphorically speaking'.

Because of the intensity of learning conversations: '30 minutes', is according to the facilitator, 'about the duration I can remember and put pieces together in a speech jigsaw'. Thereafter he listens and re-listens to the tapes, comparing the evidence he has seen and heard with the standards: 'I think this compares with that'. In arriving at his final assessment he tries to strike a balance between 'seeing things from the learners' positions' and attributing too much to them, as in: 'I have to be careful that I don't see more in their [evidence] pictures than is actually there'.

In this sense he is exercising his judgement based on a process of inference that is, in turn, based on the combination of his academic and industry knowledge bases rather than merely matching evidence against the standards. He reported trying to 'find the theoretical basis for their answers' by asking himself whether the candidates would have been able to achieve what they have 'without the knowledge'. For example, if there had been a process of organisational change in the company that had been well-managed in line with contemporary notions of good practice, is he to infer that 'someone has "grasped" the theory of change without needing to recall pieces of literature – without being conscious of it'? He argues in the affirmative. Similarly: 'they may not be aware of the authors of the research that supports the knowledge - I do not think that matters as we are concerned with the ability to manage and not the ability to recall pieces of literature'.

In the context of an NVQ this is admissible because the standards are aligned to performance in work. The facilitator captures this particular

knowledge issue very succinctly in his phrase: 'it is more important that they can do but be able to reason why they do something in a particular way'. Although he seems to be emphasising the over-riding importance of competent performance, he is also valorising the reasoning connected with the particular performance.

Ultimately, based on the required three pieces of evidence per unit selected from the taped material (plus a testimonial) the facilitator, operating in his other role as assessor, makes a judgement as to whether the candidate meets the NVQ outcomes. He sees this as an interpretive exercise on his part with the same validity and reliability constraints as any formal method of assessment: 'It's a matter of interpretation – would five traditional assessors make exactly the same judgement?' he asks. He likened his role in this regard to a dissertation supervisor in an academic context who 'listens, observes, supports learning and makes an assessment when work is ready to be submitted'.

The facilitator infers knowledge on the basis of his own knowledge base. In effect, he acts as knowledge 'translator' for the candidates. He develops a conversation that mediates the learning process, captures and records the candidates' evidence, and assesses the outcomes (including the key skills associated with Level 5). He mediates between forms of knowledge on behalf of the learner-managers. See Guidance Note: Using learning conversations.

To sum up: first, there is a complex chain of knowledge recontextualisation occurring throughout the learning conversations:

- Learner-managers are supported in recognising and expanding their learning from experience (some of which is tacit). The learning conversations extend learning: 'what' and 'how' questions extend it in a lateral way towards broader application and applicability. Learner-managers find this a difficult and demanding process because it forces them to think beyond their context.

- 'Why' questions stretch the knowledge in another direction, towards greater depth more theoretical propositions and generalisations.

As the facilitator puts it: 'I am adding a knowledge developing context to what is happening at work, to relate it to theory and also to find out more about doing the job'.

Second, there is a tacit dimension to the facilitator's work. As he said: 'I just know when to ask a question'; 'I don't know how I make the decisions'; 'how do I know when to make an intervention?' So, although he draws on various forms of codified knowledge (academic, workplace etc), for him there is a tacit dimension to all levels of knowing: 'I believe that is what competence is in one's field – a sort of practical wisdom'.

The facilitator refers to his competence as 'practical wisdom' – a mixture of codified, uncoded and tacit knowledge.

Putting knowledge to work in the workplace environment (workplace recontextualisation)

One principle for workplace recontextualisation is some degree of correspondence or congruence between the work context and learning context (i.e. paperless and peer-validated) and between the work process and learning process (i.e. informal and embedded in practice). This results in a high value being placed on the 'authenticity' of learning from experience: as the facilitator put it, 'take the glass blower who can only blow a shape supported by his experiential knowledge'; 'he's got a great understanding about what goes on in a company *rather than* what he was taught from a book'.

This conclusion is based on a view of theory as 'inert' and 'irrelevant' to business needs - 'degrees *only* show that someone has the ability to learn' - and of some college provision being all too frequently 'packaged' according to supply-side interests alone - 'will the glass blower be better by knowing about Boyles' Law?' Theory is not therefore seen as a resource to expand the process of reasoning by encouraging people to think in more expansive ways than necessarily occurs from participation in practice. The primary reason for this view of theory appears to be the gap the facilitator has identified between college teaching and workplace practice as a result of 'codified knowledge being explained in the classroom' without any attention to linkage with the world of work.

Paradoxically, despite this view of theory, the process of facilitation is a combination of experiential (i.e. derived from experience of the glass industry) and theoretical (i.e. gained from further study) knowledge.

By focusing on the accumulated wisdom of experienced managers, GTL seeks to use NVQs to add economic value to organisational life by facilitating the development of higher levels of knowledge. It also seeks to rebalance perceived status inequalities linked to forms of knowledge. The learning conversations emphasise the skills needed to do the job; they can be customised to address immediate workplace requirements

and challenges, and they operate on a relatively informal basis. Moreover, the 'learners' in question are senior managers in companies (in some instances they are proprietors). This means that they enjoy considerable autonomy in terms of the nature and character of the work context itself as well as the mediation of their knowledge out of that context, and back into it as the programme progresses.

The content and process of the NVQ are close to the culture of the industry such that knowledge and skills can pass easily and iteratively between the two cultures and the workplace knowledge 'reservoir' can be strengthened or boosted as a result: 'I'm confident about the NVQ approach to learning – for myself and my company'.

Not all companies, however, choose to follow the NVQ route. The Human Resources Manager at Zenith Staybrite (a division of Bowater Home Improvements Ltd.), reported how that company opted for a flexibly designed and delivered ILM Certificate for their supervisors. The reason for choosing this option was that the supervisors did *not* have extended experience and there was a need to expend relatively scarce financial resources on 'increasing their skills and knowledge base' in a more conventional way, rather than certifying existing knowledge (i.e. the way in which NVQs are conventionally perceived). The company valued its direct relationship with the training provider concerned and the demand-led nature of the programme that was developed and delivery that involved in-house off-the-job training on a one-day a month basis (for 18 months). This evidence suggests that there *is* a place for educational programmes outside the workplace if due consideration is given to the relationship between the two.

Other training providers increasingly offer customised packages to the industry.

Other training providers increasingly offer customised packages to the industry.

Learner-managers develop during the programme by mediating or making relationships between forms of knowledge and practice developed or surfaced during the three previous stages of recontextualisation.

The first way that this happens is as a result of GTL superimposing a learning pathway on official NVQ standards. This pathway comprises the existing knowledge and current business objectives and personal interests of each learner. One reason why this proves to be an effective strategy is because learner-managers are experienced and have already developed a broad knowledge base. Specifically, they have considerable local knowledge about particular cases, decisions and actions and also broader company-wide and industry-wide knowledge relevant to the 'applied field of [professional] actions' (Eraut 1994). What the learning conversation approach struggles to identify is how far these forms of knowledge are (to varying degrees) infused with the theoretical knowledge that permeates a science-based industry – its practices, artefacts, journals and the like.

Most of the learner-managers felt that their work circumstances and personal histories were more conducive to the informal rather than a formal training route: 'If someone had said to me - "You're gonna be doing your Level 5 NVQ at the college, every Tuesday night, every Thursday night, between 6 and 8" – they'd always be a reason why I couldn't be there - it would not have happened - not at our age and after work'; 'sitting down and writing 10,000 word essays – no way!' However, although they prefer the informal approach to learning and development, they are aware that NVQs have low status, as in: 'I hope you're getting good feedback on NVQs – I get the constant feeling that vocational qualifications are second best.'

The learning pathways (or 'curricula') are designed around the combinations of different forms of knowledge that the learner-managers bring to the process, with the NVQ standards in the background.

The second way that learner-managers recontextualise knowledge and skill is from forming a relation with the facilitator that is based on respect for his industry and company knowledge and trust as regards his judgements: ‘he had a remarkable understanding of me and the business when you think about how many companies and people he works with’; ‘he has worked in the industry – that’s important’; ‘he’s got great understanding about what goes on behind running a company’; ‘he knows what you’re talking about’.

The existence of this level of respect and trust meant that the learner-managers: (i) felt that they could *approach* the facilitator: ‘you can tell him about your life at work – your experiences, what you’ve achieved, what you hope to achieve’; ‘you feel comfortable talking to him – not nervous – not intimidated’ - this helped to put them at ease; (ii) appreciated his *perceptiveness*: ‘he notices your mood’; ‘he notices when we are stressed out - “tell me what’s been going on?” ...’ - this helped them to surface their knowledge more easily; (iii) valued his *non-judgemental style*: ‘he doesn’t criticise’ - this helped to develop their ability to reflect more deeply; and (iv) the *respect* he showed them: ‘he relates to us as people’; ‘the skill is the way he deals with people’; ‘the way he talks to people’ - this helped them develop the confidence to think their way into new situations. There were also occasions when confidentiality could have been an issue, but it never was. The upshot of all of these qualities in relationships terms was *mutual respect and friendship*: ‘I make sure I’m there for him because that’s the respect I have for the guy’; ‘it’s about friendship’.

What makes a good facilitator in this context is someone who is from the same “community of practice” as the learners: someone with knowledge and empathy and who treats them as equals.

The learner-managers felt that the assessment methods used were suitable for those in the ‘mature bracket’ and appreciated the way in which they were embedded in work-related practice, sometimes to the point of invisibility: ‘he asked me to chair a meeting which I did and afterwards he

said that he'd use it as part of assessment - I was unaware I was being assessed'.

The reflective element was seen as an invaluable aspect of the recontextualisation process for a number of reasons. The learner-managers appreciated the way in which they were made to 'sit back and reflect on what we actually do here', and the way they were probed and questioned to help 'get everything out of you - he drags it out of you'; 'he proposed the questions and I had to produce the evidence that I had done that'.

They also appreciated the starting point that recognition of their accumulated knowledge and skill 'comes from our learning' and were aware that, for the main part, the concern was to recognise prior knowledge: 'most of the questions he posed I was doing anyway'; 'it was accrediting the knowledge and skills already acquired over 40 years, and feeling more confident for having done so'

These methods worked well for these learner-managers because they stimulated their thinking beyond the immediate assessment context: 'it refreshes your mind and makes you start thinking again'. Moreover, they also realised that the reflective process encouraged them: 'to stock-take' and 'to get order into things', and to become more conscious of the tacit nature of much learning: 'doing NVQs has allowed us to sit down and think "bloody hell, do we do that much in a day?"...'; 'suddenly I realised how much learning I'd been doing all long – for example, a unit on "Making Use of Outside Sources" – I realised that associations and publications I read had been expanding my knowledge base'.

They also endorsed the division of labour within the process and way the facilitator eased the burden on them by acting as gatherer and translator of evidence: 'I didn't have to do an enormous amount of work'; 'I don't want to sound blasé but the whole process was relatively easy in as much as all I was doing was regaling him with what we were doing on a day-to-day basis'.

The net effect was that most of the learner-managers reported changes in themselves or their working practices on account of the NVQ process. Of the three Owens-Illinois managers, one reported delegating more as a result of the NVQ experience; another cited feedback from company supervisors that he was now better organised and the other reported feeling more confident dealing with European partners ('Swiss men in suits').

The NVQ is 'often the first time an employee gets some recognition for their learning'. Confirmation of knowledge and practice was a significant part of that recognition: 'confirmation that I was doing most of the right things most of the time'; 'confirmation that some of the things we were doing were on the right track'; 'confirmation that what we do falls in with reasonable practice'. The confidence enhancing effect of confirmation was balanced with some 'disconfirmation'. One manager reported how he realised he 'wasn't always prioritising in the way that others were – I was doing the things I liked doing or was comfortable doing'. Another cited his growing awareness that 'there were many things I had started to do with best intentions, and not finished - that made me sit up and think – "hey maybe I'm not as good as I thought I was"...'. Instances such as these comprised the new learning that led to the modification of practice, 'improved self-organisation' and the development of some meta-level processes for managing their own behaviour.

The learner-managers valued the learning conversation approach as a way of confirming and extending their knowledge and practice. 'New' learning builds on 'old' learning.

Following this type of NVQ process has wetted the appetites of these particular learner-managers for more learning. One person referred to how much he had valued being part of a supportive learning community: 'I looked forward to those interviews and found them interesting and rewarding in their own right'; 'I was disappointed and quite sad when it finished - what to do next?' The facilitator bore out the way in which NVQs

can act as an access route into further learning: 'I feel that as educators we have missed a major opportunity to get people back into formal learning through this model of codifying their experience'. There was a general consensus that academic progression (and university recognition) would be valuable to them as individuals, to their companies and to the industry as a whole. One manager who had started an MBA a few years previously was considering returning to it. Most of the others were interested in the possibility of some kind of conversion between the Level 5 NVQ and a customised Masters' programme.

The NVQ process has stimulated appetites for higher learning, particularly university-validated learning.

Commentary on the four modes of recontextualisation

There has been a debate between researchers since the inception of NVQs as to whether they were 'containers' for the accreditation of prior knowledge and skill or 'enablers' for the development of workplace learning (Evans and Germon 1993). Over the years, it has become clear that those companies that:

- articulate principles for integrating knowledge and skill within the workplace;
- identify pedagogic processes to support the acquisition and integration of knowledge and skill;

offer a comparably different learning experience to their workforce (Fuller and Unwin 2004) and operate with a higher product and service strategy (Keep and Mayhew 1999) compared with companies that have primarily used NVQs as an accreditation mechanism.

What is distinctive about GTL's approach of using NVQs to accredit learners' 'customised pathways' is that it has found a way to help companies who have not necessarily followed the former path to do so.

The GTL's starting premise is that the knowledge base of experienced managers - 'work process knowledge' (i.e. knowledge of 'how the various dimensions of the work are connected together in the context of the whole company' (Fischer and Rauner 2002) - is rich and varied. From GTL's perspective, this work process knowledge constitutes a mediating resource between theory and practice so long as systemic procedural knowledge (the established rules and practices for the organisation of work) and the scientific and technological knowledge (acquired through apprenticeships and extensive participation in the workplace communities of practice and which is embedded in the work process) can be successfully articulated in relation to one another.

This model of content recontextualisation rests quite explicitly on the

pedagogic processes described 'below' or described 'above'. Before considering their efficacy, it is important to restate that the two issues mentioned earlier in the exemplar, namely managers' extensive experience of the work process and the facilitators' extensive experience of the industry supplemented by academic study, constitute the necessary and sufficient conditions for the learning conversation and are therefore likely to be integral to any attempt to replicate it in other contexts.

One of the long acknowledged problems associated with knowledge embedded in the work process and knowledge embodied in individuals and/or collectives is that it is extremely difficult to disembod (Polanyi 1967) or to disembody (Nonaka and Takeuchi 1995). As a consequence, researchers have had to develop innovative methodologies to help people to surface their tacit knowledge (Eraut 2007; Evans *et al* 2004) and/or to articulate the nature of their embodied knowledge and understand its relation to disciplinary knowledge (Kent *et al* 2007).

The GTL's model of pedagogic recontextualisation, although not expressly codified, clearly rests on a number of principles, for example, 'deliberation', 'reflection' and 'mediation' that have been acknowledged as central to understanding workplace learning (Eraut 2004; Guile 2006), in conjunction with, a very broad knowledge profile.

The power of the recontextualisation method – learning conversations - lies in facilitator's judicious use of:

- the process of deliberation to encourage the managers to consider what they do, how they do it and what they might understand as a result;
- the process of reflection to encourage them to think more deeply about more systemic issues and their potential connections to one another;
- his own extensive knowledge of the industry and its complex and varied work processes to help the managers to mediate between

their deeply situated, often tacit knowledge and his consciously known, albeit uncodified knowledge of the work process. This mediation involves grasping issues on a continuum from opaquely to clearly and identifying particular issues that still require clarification.

The net effect can be described as a process of codifying uncodified knowledge and practice so as to enable learner-managers to appreciate, when they read his reports, what they actually know.

One of the unintended outcomes of this process is that learner-managers are able to engage in 'knowledge propagation' (Beach 2003), that is, to formulate and share generalisations about the work process, and to 're-contextualise' (van Oers 1998) those generalisations, in other words, use them to guide thought and activity in different contexts so they and their team can function more effectively. This means that learner-managers are able to overcome, to some considerable extent, one of the problems associated with narrow interpretations of NVQ assessment methodology that rest on an assumption that knowledge can be *inferred* from what people say: 'if they are saying *this* then they must know *that*'. Nevertheless, because the GTL model does not require learner-managers to study in the conventional academic sense of reading theoretical texts, these generalisations are rather 'weakly framed' (Bernstein 2000) in relation to forms of codified knowledge that might further enhance learner-managers' knowledge base, practice and learning.

The efficacy of recontextualisation relies primarily on the facilitator's dual role: to facilitate learning conversations and to assess and express the quality of learner-managers' knowledge in his reports. The strength of this approach lies in the combination of the facilitator's extensive knowledge of the sector and the field of workplace learning. This enhances the equation - work + reflection = learning - that informs the GTL model and, in the process, potentially militates against a narrow empirical base.

The process of pedagogic recontextualisation is reinforced in the workplace by, on the one hand, the facilitator urging the learner-

managers not to treat their NVQ accreditation as a form of closure on the development of their practice and to rest on their laurels. By retaining the same person to act as facilitator-assessor for subsequent unit assessments, GTL significantly enhance the NVQ assessment process. This approach provides continuity based on both parties' 'collective memory' of the nature of the learner-manager's understanding, the range of evidence they presented, and the number of connections they were able to generate about different aspects of the work process. The net effect is to provide a very strong 'internal' (i.e. learner-manager generated) and 'external' (i.e. facilitator sustained) motivation to continue to build upon the previous level of achievement. On the other hand, the GTL model of workplace recontextualisation places considerable emphasis on the value of mentorship as a non-judgemental resource to assist learner-managers to 'voice' their emerging understandings about the work process, articulate their concerns, and confess where they are uncertain and/or lack confidence or experience to address aspects of their workplace role and responsibilities.

The main workplace features that support theory-practice relations can be summarised as 1) the mix of knowledges therein; 2) the onward technologisation of the industry; 3) the need for new knowledge combinations; 4) traditions of mentorship. Taken in combination, the principles of assessor-continuity and the provision of workplace mentor not only serve to consolidate workplace performance and workplace learning, but also support the generation of new knowledge. In the case of consolidation, GTL's approach recognises that 'participation in' (Lave and Wenger 1991) and 'dialogue about' practice (Wells 1999) are essential features of any learning process and that in order to draw out qualities and insights that learner-managers were unaware they gained from such engaging in such activities is necessary to make that knowledge about practice explicit. In the case of the latter, the GTL model appears to succeed in motivating learner-managers to generate new knowledge because it motivates them to envision new situations and challenges and to anticipate how they and their team could respond.

One question though remains: were the above principles and practices to be completed by a view of theory as a resource to encourage people to 'think differently' about work process and practice then, arguably, it might add a further dimension to their learning by encouraging them to use theory as a resource to evolve or transform the work process?

Recommendations

It is important for anyone seeking to replicate this model to appreciate that it is based on a number of very interesting curricula, pedagogic and assessment strategies.

To ensure that NVQs capture the holism of workplace experience, it is essential for employers and training providers to:

- agree a shared rationale as regards the purpose (i.e. make existing capability and capacity visible) and outcome (i.e. embed a culture of continuous learning) of the NVQ assessment process;
- map NVQ units and modules onto workplace roles, responsibilities and knowledge bases to reflect this shared purpose and the holism of work roles;
- identify a pedagogic assessment process – ‘learning conversation’ – rather than a technical assessment process that reflects the rationale and the mapping, so that experienced staff can articulate their knowledge and understanding and begin to see thematic and practical connections in different aspects of the work process.

To ensure that this pedagogic assessment strategy supports learners to articulate their knowledge and understanding and to begin to see thematic and practical connections in different aspects of the work process, it is necessary to:

- appoint a facilitator who has a good balance of industry- and level-specific and educational expertise (i.e. knowledge of theories and processes of work-based learning).

This balance is critical because it enables the facilitator to steer the learning conversations in an iterative and reflective way to help experienced staff to gradually develop the confidence to:

- articulate their ‘know how’ knowledge;

- develop a self-generated critical perspective on that knowledge and on the work process;
- read their own assessment reports and use them as a resource to begin to see beyond their current understanding of the work process and to generate additional insights about the work process.

To ensure that learners are offered a supportive yet stretching process to consider the implications of their new knowledge and even to formulate ideas/plans to revise the work process, it is vital that they are provided with:

- an experienced mentor who helps them to explore their ideas and suggestions in a non-judgemental way.

Finally, it is essential to recognise that the success of the above processes is only partly based on the aforementioned pedagogic assessment conditions. It is also partly based on:

- the composition of the cohort (i.e. experienced adults) who are actively using the NVQ accreditation process to credential their workplace knowledge, skill and judgement; and, in the process, to enhance their manager identity.

Anyone wanting to introduce a more theoretical orientation into this model:

- could extend the pedagogic assessment process by having the facilitator: (i) nominate key texts for the learner-managers to read; (ii) set them written assignments that require learner-managers to use the texts as a way to critically interrogate existing practice and identify alternative ways of organising practice; and, (iii) point out the progression possibilities to other Level 5 programmes.

This approach would enable the learner-managers to re-think their view of theory as 'inert' knowledge and to help them to appreciate that it can be a resource to think differently about practice.

Anyone wanting to use the 'learning conversation' methodology to

enhance an existing work-based course should consider whether they have:

- a similar commitment to curricula and pedagogic holism;
- the necessary forms of embodied knowledge and skill and judgement in their delivery team to create their own version of the pedagogic-assessment process.

Furthermore, if the learning conversation approach is to be replicable it has to be brought into relationship with different Quality Assurance systems.

Endnotes

ⁱSources: <http://www.britglass.org.uk/Industry/IndustryHome.html> and <http://www.glass-training.co.uk/Publications/datasheet%2011%20June06.pdf>.

ⁱⁱSee: <http://www.vcoll.ac.uk>.

ⁱⁱⁱ<http://www.glass-training.co.uk/Publications/datasheet%202%20June06.pdf>

^{iv}The industry has strong historical links with the University of Sheffield. The latter has a tradition of producing glass technologists.

^vSource: <http://www.management-standards.org>

^{vi}Source: http://www.ocr.org.uk/qualifications/nvq/contact_centre_professionals_level_5/documents.html

City College Norwich with Norwich Union Insurance and Marsh UK

Foundation Degree in Financial Services

A Foundation Degree with dual accreditation designed by a college and local employers to address skills shortages in the industry.

Executive Summary

This exemplar describes and analyses a Foundation Degree (FD) in Financial Services with an emphasis on general insurance. The FD, the first to be developed in the sector, was established as a demand-led partnership between City College Norwich, Norwich Union Insurance (Aviva) and Marsh UK. The programme operates on the basis that learners are employed for 2-3 days a week and spend the rest of the week at the college or in private study. Most learners have good A-level grades but have decided against the full-time university route.

The FD reflects education, professional and company requirements. It includes the insurance knowledge necessary for professional accreditation, company-specific knowledge and skills, generic skills for employability and academic knowledge for progression to an Honours degree. A number of strategies are used to support learners to link theory and practice: (i) the college uses company documentation and practices as curriculum resources; and (ii) job rotation and mentorship deepen and broaden understanding about work process.

Exemplar overview

The Financial Services sector comprises banking, insurance, financial advice and investment - with insurance as the largest component (52% of all companies). The sector as a whole is characterised by small companies: 95% of organisations employ less than 25 people; only 1% of companies have over 100 employees. Although few in number, there is a predicted growth in 'super-large institutions' (especially in insurance [FSSC 2006]) as a result of the tendency for larger companies to outsource or 'offshore' key functions such as back-office processing and call centre work.

Roughly 4% of the United Kingdom's (UK) workforce works in Financial Services (a figure set to rise slightly between 2005 and 2010). According to the Financial Services Skills Council (the FSSC), in 2005, skills gaps were reported to be 20% which translates into over 60,000 employees requiring training/not proficient in their current jobs (the average figure across all sectors is 16%). Moreover, a collective staff turnover of 80% has been predicted for the decade 2000-2010 which means that the sector is experiencing skills gaps *and* skills shortages (FSSC 2006).

A strongly performing sector of the UK economy and a major national employer, currently experiencing skills gaps and skills shortages.

A Norfolk 'Shaping the Future' economic development partnership was formed in 1997 after research showed the county's economy was lagging behind the rest of the region due to the decline in traditional industries such as fishing and the loss of large and long-standing companies. The aim of the partnership was to bring the public and private sectors together to address economic regeneration and performance. To that end, Norfolk's economy was split into nine key sectors deemed vital to future prosperity and an employer-led working group set up for each.

A Financial Industry Group (FIG) was one such group, and one that has

been very active in the region ever since. Seventeen financial companies have their regional or national headquarters in Norwichⁱ. This means that one in four people working in the city are in Financial Services and the growth rate is anticipated to be 20% (CCN/UEA 2004). In 1999, the partnership's work was augmented by the creation of the East of England Development Agency and the subsequent development of a Regional Economic Strategy. Over time, local employers have become increasingly involved in these forumsⁱⁱ.

An established infrastructure for economic development in the region and significant local employment opportunities.

Norwich Union Insurance (NU) originated in the city in the eighteenth century. Part of the Aviva Group, it is the world's fifth-largest insurance group and the largest provider of insurance services in the UK. It is the leading provider of life and pension products in Europe and is expanding into long-term savings businesses in Asian markets, Australia and the United States of America (USA). Marsh UK is a leading insurance broker and strategic risk advisor for a wide range of industries and companies. With an international dimension, this company covers all aspects of commercial risk and risk strategy: from risk identification and assessment, to risk quantification and prioritisation and risk mitigation and financing.

The activities of the FIG played a large part in the region's successful bid for one of the first cohort of National Skills Academies (NSA). The NSA in Financial Services has four regional centres (in London, Leeds, Manchester and Norwich). The Norwich centre, headed by City College Norwich (CCN), was the first centre to be established – in 2006, with further specialist premises in the city centre coming into operation in late 2007.

The National Skills Academy provides a high-profile environment for the Business School and offers opportunities to consolidate and develop relationships with two high performing local insurance companies.

Professional qualifications are mandatory for many roles and functions in Financial Services and employers have a statutory responsibility to provide training opportunities. The industry regulating body, the Financial Services Authority (FSA) began and the FSSC (established in 2003) completed a process of comprehensively reviewing all professional qualifications, streamlining some 500 'approved' examination routes into an industry-wide single qualifications system aligned to Appropriate Examination Standards (AES).

A strong and long tradition of professional qualifications in the sector as a whole.

The Chartered Insurance Institute (CII) is the major professional body for those working in general insurance with some 90,000 members. The Institute was actively involved in the FSA/FSSC review referred to aboveⁱⁱⁱ. It currently oversees all levels of accreditation from apprenticeships upwards. The professional pathway (see Appendix A: Professional pathway in insurance) includes a Certificate (level 3); a Diploma (level 4) and an Advanced Diploma (level 5) leading to the full Fellowship. Continuing Professional Development is mandatory.

The Chartered Insurance Institute is extremely influential in the industry.

The Foundation Degree (FD) (Financial Services) arose from discussions within the Financial Industry Group where the idea of undergraduate-level recruitment was raised as a cost-effective alternative to companies' traditional graduate recruitment schemes. This idea was pursued with City College Norwich - a large college with a history of providing further and a more limited range of higher education to its regional hinterland – and the FD is located in the Business School of the college, a school that was awarded Centre of Vocational Excellence (CoVE) status in Business and Finance in 2003.

Although the first FD specification stated that the programme would cater for intermediate-level *skills gaps* within existing workforces, for example, team leaders and supervisors, this has not proved to be the case. Rather, in the main the FD has catered for *skills shortages* by recruiting new entrants to the industry as trainees. The programme operates on an 'earn and learn' basis. Trainees are in paid employment at the same time as they are in 'full-time' study^v. For the first two years, they spend two to three days a week in the company and the other two to three days at college (one day of which is designated a private study day). Thereafter, they are released, usually for a day a week, to attend and study for an Honours degree^v. Thus, although the FD 'aims to build awareness of business and business environments ... [and to]... provide you with skills to progress your career in Financial Services organisations', it also aims to ensure that students 'acquire sound academic study skills' (CCN/UEA 2007-08).

An ambitious company-college partnership through which to grow local talent.

Potential participants respond to local newspaper advertisements placed by the companies, outlining the overall scheme i.e. employment + education/degree. Interviewees reported how the initial response (in 2004) was good. Candidates were interviewed jointly by the employer concerned and college staff. The recruitment process was reported as being quite rigorous: 'there were a few steps to go through – lots of people in the room – they all assessed us using group questions and role-plays'.

All of the students commented very favourably on the 'earn and learn' dimension of the programme and on the relatively short period of time it takes to attain qualifications whilst also acquiring valuable work experience. Most participants had good A-level grades but had decided against the full-time university route. Emily, for example, had

finished my 'A' levels and wasn't sure about university - I took

Geography, Sociology, English Literature and Biology - that was quite a lot of work as my subjects were so varied. Because I did four A-levels people were keen on me going to university and that put me off! I'd got an A, a B and two Ds and had applied to do Ecology – completely not Financial Services! But it seemed wrong when I went there - so I thought more about going to work and potentially building myself up through studying while I was at work.

This quotation echoes the sentiments of many other prospective students. As one of the college lecturers put it: 'They *did* want to go to university but they didn't want to be poor - the FD pressed all the buttons for them'. Basically, as one student put it: 'I needed the money'. The 'earn and learn' option was therefore a positive choice for the majority of the students, not a second-best option^{vi}.

The first cohort of FD participants began in 2004. Eight of them graduated in 2006 and progressed to a customised Honours degree, from which they graduated in 2007. The second cohort began in 2005 and eight students graduated in 2007 - with better results than the previous cohort – one distinction, six merits and one pass (compared with the previous cohort where only one student received a distinction and the rest passes). Seven of the eight graduates started their Honours programme in 2007. The third cohort began in 2006 and five students were entering year two at the time of interviews.

Putting knowledge to work in the programme design environment (content recontextualisation)

Given that the FD programme was ostensibly designed 'from scratch' and on the basis of liaison and consultation between local companies and the college, the main challenge was to recontextualise different types of knowledge and demands into the FD curriculum.

A range of experts from the sector and education was involved in the design; each brought different backgrounds and interests to the process. On the college side, a new and energetic Head of Business School was appointed around 2002. She remained at the college until early 2007. In this report she is referred to as Head of Business School [1] and her successor as Head of Business School [2]. Coming from an academic (Social Science) background, she had previously worked in a number of higher education institutions and had wide experience of curriculum design and validation processes in relation to Business and Computing undergraduate degrees.

On the sector side, a retired, now self-employed insurance professional, holding a Fellowship in Insurance (as a Chartered Insurance Practitioner) and a Chartered Fellowship of the Institute of Personnel Development (in forthcoming sections of this report he is referred to as Chartered Insurance Practitioner/college lecturer [1]) contributed to programme design (and teaching) as the 'CII co-ordinator' and in that capacity was actively engaged in establishing the dual accreditation component of this programme.

Company contributors to the design process tended to be Human Resource (HR) specialists (the generalist company managers who were involved in the Financial Industry Group delegated the detailed work of programme design). So, for example, responsibility passed to a Head of Training with responsibility for company-wide learning and development services. The expertise and knowledge base of these contributors encompassed insurance- and company-specific technical and

professional knowledge and experience and knowledge of HR and people management and development in a range of business environments.

Contributors to programme design with different areas of expertise, knowledge and experience e.g. company knowledge, people development expertise, technical insurance knowledge, professional examinations experience, academic expertise.

Head of Business School [1] set up a programme design group comprising the above members (in 2002). She was referred to as being 'the main driver'. The first step in what was an iterative design process was to establish what were called employers' 'general skill requirements'. Company representatives were consulted via roundtable discussions structured around questions such as: 'what particular areas do you want students-employees to have skills in?' One of the company representatives referred to this as 'working with her looking at the things that were important to go into a programme from the organisation's point of view'.

General skill requirements were identified as: 'customer focus/service', 'financial regulations', 'ethics' and 'risk'. Company representatives were keen for these to permeate all aspects of the programme, rather than only be taught as discrete modules. Representatives were subsequently invited to give their views on key, transferable skills via questions such as: 'if these are the things you want to achieve then what else is needed - what kind of person do you want - what skills do they need?' Such questions elicited responses such as 'communication', 'interpersonal skills' and 'analytical skills'.

Employer contributions to programme design based on conventional 'subjects' and general productivity and internal labour market requirements.

Head of Business School [1] took this baseline information and matched it

against already established curriculum areas with which she was familiar i.e. the structure and content of existing undergraduate programmes in Business and Computing, and the academic requirements of the FD validating body – the University of East Anglia. Such programmes can be seen as pre-existing selections and syntheses of knowledge (from a range of disciplines) undertaken with regard to the issues, problems and needs of fields of professional practice.

Subject specialists from the college and Chartered Insurance Practitioner/college lecturer [1] contributed to the development of detailed module content. It was at this point that the cross-mapping with professional qualifications commenced (although the process was not completed until several years later). The main reference point for Chartered Insurance Practitioner/college lecturer [1] was the pre-existing CII qualifications. These are industry-specific and closer to the (technical) knowledge demands of professional insurance practice than undergraduate programmes.

College contributions to programme design drawing on pre-existing undergraduate programmes; professional contributions drawing on the knowledge demands of insurance practice.

The modules and the content of them were agreed with company representatives as they developed. As one representative put it: 'usually 90% of their proposals were absolutely fine – there was about 10% around the edges where we would say for example "we want more of x or y"...' An example of this type of negotiation was 'customer service/focus' which was of particular importance to employers. Requests were made to reduce other aspects of the programme to make room for it: 'We wanted more of a focus around the customer – we didn't want the international dimension of financial services to be so big in the programme, so we asked them to prune that back and spend more time on base customer stuff'.

Although company and college were involved in the process, each attributed more involvement and ownership to the other. For college interviewees: 'employers basically wrote the modules'; whereas for the company representatives, 'the college was driving a lot of the sorts of things they thought should be in the curriculum for the FD - we had a series of meetings - they would put a proposal on the table and go through it with us'. The fact that company interviewees were able to say that the 'content of the course is good for our needs' suggests a successful balancing of interests in this regard.

The design process provided a blueprint for the Financial Services Skills Council. The Council undertook a major consultation to broaden the insurance programme to cover the whole of Financial Services. The 'general skill requirements' were redesignated 'core concepts' and defined as 'role-independent' skills to be 'threaded through' every Financial Services FD curriculum rather than delivered as discrete modules, as was originally suggested by local employers.. 'Key, transferable skills' were broadened and designated as 'essential skills'[see FSSC 2006]).

A negotiated programme that took account of employers' needs within the framework of academic and professional programmes even though 'there was great difficulty in getting the two worlds to meet' (Head of Business School [1]).

The detail of the approach to dual accreditation has gradually evolved. For the first cohort, the five-module CII Diploma in Insurance was embedded into the Foundation Degree 'as is' (modules were selected from the CII portfolio by Chartered Insurance Practitioner/college lecturer [1]). In practice, the CII assessment accounted for approximately 30% of each overall module mark (the remaining 70% being FD assessment). At this time, the CII assessed via examinations, so each 30% was a three-hour examination. Examinations were conducted twice each year (the college was already a CII examination centre). The pass mark was 55%. If a student failed to attain 55% s/he would have to retake the examination six

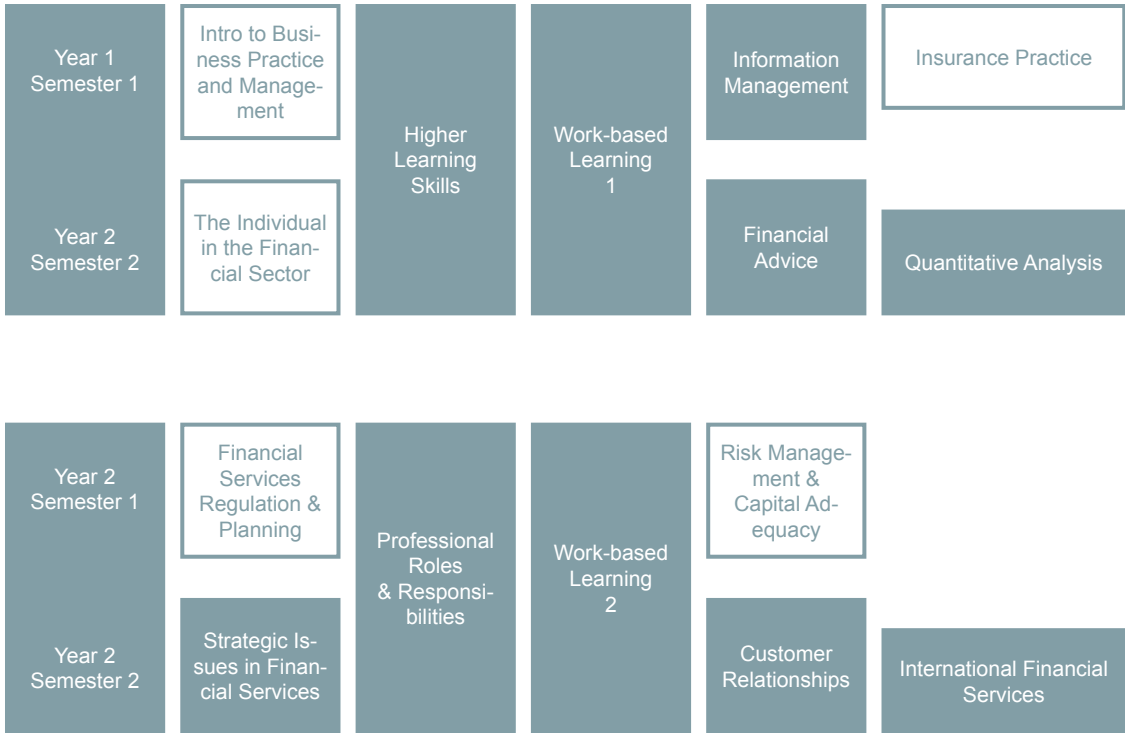
months later.

For the second FD cohort, a process of internal examinations was piloted. A Chartered Insurance Practitioner/college lecturer [1] had been involved in a similar initiative for another centre's programme and was able to broker this arrangement with the CII on an 'informal basis': 'he knew how to put forward the arguments'. The use of internal assessment rather than external examinations afforded the college and learners greater flexibility. As an experienced CII-licensed assessor, the Chartered Insurance Practitioner/college lecturer [1] sets internal assessments, drafts marking schemes and seeks approval for them from the CII: 'The only restriction is that I can't invigilate'.

In this way, he has been able to substitute a series of mini-examinations for four of the five three-hour CII examinations^{vii}. Mini-examinations can be taken when learners and lecturers are ready rather than at set times of the year, giving the college far more control over the process. Although each mini-examination still has to be passed at 55%, if a student fails one part, only *that* part need be retaken (and at any time i.e. without a requirement to wait for six months) – 'the rest are banked'. After pilot status for two years, 'APL' is now approved for three years.

The FD syllabus is given in Figure 1. As discussed, it consists of fifteen modules organised on a semester basis. Five of the modules (80 credits in all) are dual accredited^{viii}. Four modules are common to all Foundation Degrees at the college – in whatever subject or sector (60 credits in all)^{ix}. Although they are common modules, they are designed and delivered on an individual programme basis because it is accepted that, for example, Higher Learning Skills 'will be different in Financial Services than – say – Health'. The remaining six modules are FD-specific (100 credits)^x.

The CII Diploma in Insurance is embedded into five FD modules and examined as a discrete part of each module.



Credit rating of modules:

All are 20 Credits except for Higher Learning Skills, Professional Roles and Responsibilities, Insurance Practice, Quantitative Analysis & International Festival Services (which all carry 10 credits)

Modules in white boxes carry dual accreditation. Modules in dark boxes are FD only.

Figure 1: The FD Syllabus

Responsibility for the *sequencing* of modules was undertaken as part of the validation process. The sequencing rationale revolves around developing understanding of more general and 'basic' concepts in the first year of the programme and 'more complex concepts and models' in the second year. This notion of progression is predicated on later modules making more knowledge demands and requiring more exposure to the world of work. For example: the Strategic Issues in Financial Services module 'is a culmination of the rest' - it draws on economic ability (from the Business Practice and Management module) plus some management theory (from the Information Management and The Individual in the Financial Sector modules); 'Risk Management makes more demands on their [i.e. the students'] understandings in a particular context'; 'Customer Relationships needs other modules'. In this way, although the sequencing of modules can be altered, this cannot happen on a completely arbitrary basis. Indeed, apart from a few minor modifications in 2005 (as the dual accreditation process developed), sequencing has remained constant.

Careful attention to sequencing is important. A module sequencing principle based, as far as practicable, on teaching general, enabling knowledge first.

As Head of Business School [1] put it: 'there are two sets of regulations working through the same programme'. These are variously described. Head of Business School [1] refers to the 'higher education institution and the CII'; Chartered Insurance Practitioner/college lecturer [1] refers to 'a vocational degree and a professional qualification'; one of the college lecturers refers to 'a UEA syllabus and a technical syllabus'.

In theory at least, these two sets of regulations presented the college with, for them, a new challenge of combining different expectations and types of knowledge into the FD. The Head of Business School [2] reported how accommodating the professional-industry input was, initially, quite 'alien' to the college culture. The CII unit syllabuses are more content-heavy than the FD modules (students reported '150 pages to read for one class'), tending to be closer to disciplinary knowledge (Law and Economics). For

example, the module Financial Services, Regulation and Planning and the module Risk Management address regulatory and legal frameworks and 'case or statute law and the precedents that have been set over 200-300 years'. Whereas, the modules designed specifically for the FD are less-content heavy, for example, the Strategic Issues in Financial Services, Customer Relationships and Financial Advice modules.

Equally, the assessment pattern for the FD had to combine the CII 'numbers-based' and formal approach i.e. dependent on explicit marking schemes and percentage points modes and the 'broader' modes, for example, project reports, presentations, portfolios and practical assignments, that were a feature of the FD. Moreover, the latter assessment criteria are more diffuse with more room for teacher discretion than is the case in the tightly prescribed marking schemes favoured by the CII. As Head of Business School [2] put it: 'their style [i.e. the professional style] is rigorous in terms of outcomes and assessment – quite precise - we're [i.e. the college] more general'.

The incorporation of professional body accreditation introduces a further logic and set of interests into the programme design process, added to the two worlds referred to above.

The recontextualisation process therefore 'blended' company, educational and professional considerations into a single 'company programme'. The combination of time pressures and lack of available alternative models meant that the new FD consisted of a number of discrete modules reflecting the interests of these different constituences, rather than integrating these competing considerations with one another: the CII units being taught by lecturers with insurance experience wherever possible, and the college units being taught by lecturers with generic rather than industry-specific expertise.

Three worlds of company, academia and professional body converge in the design of a single 'company programme'. Here we see one way to meet the difficult challenge of creating synergies between different and sometimes divergent design logics, knowledge orientations and interests.

Putting knowledge to work in the teaching and facilitating environment (pedagogic recontextualisation)

The broad teaching experience of the members of staff involved with the FD, i.e. a mix of FE and industry, was a major factor in supporting the pedagogic recontextualisation of the new FD curriculum.

The newly appointed Head of Business School (referred to as Head of Business School), who has undergraduate and Masters degrees in Government and Politics and an MBA in Business Management, describes himself as ‘a true FE person’ capable of bringing 27 years as a teacher and manager of Business Management programmes, particularly those at higher education level, to bear on the pedagogic process. Equally, the Chartered Insurance Practitioner/college lecturer [1] brought a rich professional knowledge-base and wide technical experience of insurance and experience of teaching. The third member of the team – a Chartered Insurance Practitioner/college lecturer [2] – brought the experience of a 35-year career in the industry. This included experience in Scotland and Switzerland and having become a CII Fellow, gaining a masters degree in Training and a Postgraduate Teaching Certificate.

Although all the staff were committed to: ‘working together productively because the industry experts can inform the full-time college staff about the profession and the latter can make sure that all the education structures are in place’ (Head of Business School [1]), achieving this proved to be very demanding in practice. Even though a number of compromises had to be made on the way, the experience was ultimately a rewarding one.

The teaching members of staff display a breadth of academic-professional-technical-educator expertise across the business and insurance fields. The challenge is to find the best ways to synergise these rich resources whilst accepting the inevitability (and potential benefits) of difference.

One particular challenge was to prepare students for the CII examinations without succumbing to the pressure to 'cover' everything on the syllabus through the use of very tight and disciplined sequencing and pacing. For example, in the Financial Services Regulation and Planning module, the lecturer referred to himself as operating in 'an old-fashioned formal way'. By this he meant 'explaining concepts' and 'modelling principles' so that the students could understand them. He was of the view that the complex nature of the knowledge required some 'drilling' and 'memorisation' of facts and reported how he had produced resumés of case law to help students in this regard. The relationship between breadth and depth is very real in most of the CII units. There were a number of references to 'memorisation', 'learning bullet points by rote' and 'regurgitation' in order to 'get through the syllabuses'.

In contrast, the team felt able to adopt a more informal approach to teaching and learning in the FD-specific units because they were not only less content-heavy, but also not subject to professional body-approved assessment. As a consequence, the sequencing and pacing of teaching are more relaxed and learners are offered the opportunity to work on case studies, engage with simulations of sector-specific problems and dilemmas, as well as undertaking a mix of practical tasks, research activities and discussions.

This mix of highly and loosely structured modules, however, was not always well received by participants. There was a sense in which some modules were experienced as *too* relaxed and almost lacking in pedagogic authority, especially the common modules.

Teaching and learning activities and methods are influenced by the particular backgrounds and areas of expertise of the teachers, by the mode of assessment, by syllabus load and by the nature of the knowledge itself; the challenge is to develop pedagogic strategies that are genuinely fit-for-purpose.

One central pedagogic strategy to link the forms of knowledge participants were learning involves them gaining access to both company *documentary resources*, for example: vision and mission statements, policies, corporate strategy, policy guides and wordings, business statistics and forecasts, regulatory information, claims manuals, annual reports, marketing information, services and products, ethics guidelines, and so on i.e. codified workplace knowledge. Students are also required to access the *human resources* of the organisation, by communicating with technical colleagues, human resource managers, marketing colleagues, company trainers, compliance managers, company solicitors, claims handlers, risk surveyors, IT specialists etc, i.e. non-codified workplace knowledge.

The pedagogic idea is that participants use the content of the modules to illuminate and explore company practices and vice versa, although inevitably the possibility of engaging with these resources varies from module to module. For example, The Individual in the Financial Services Sector module requires participants to access technical colleagues (e.g. class underwriters) and documentary resources such as underwriting guides, while the Risk Management module requires participants to interview company risk surveyors and claims handlers and to acquire documents such as claims and survey manuals and policy and client records.

This activity facilitates a process of company-college 'boundary crossing'. Moreover, it is assumed that 'essential skills' will be developed as participants undertake research, engage in a professional manner with company colleagues and compose presentations and reports for the class: 'They develop general knowledge and specific applications and research skills and presentation skills'. Although this ambitious pedagogic strategy did not always go entirely to plan, when it did work, it worked well, as remarks from the lecturer from the common module Work-based Learning (in year one) reveal. He reported how he introduced Business and Management topics such as marketing, accounting, human resource management and change management, and requested that students

'go back to the workplace and get examples to bring back and discuss'. He supported this process by visiting the companies - 'to make sure participants had support' – and feedback was very positive: 'WBL – the 1st yr of that was brilliant'. A vital ingredient in the success of the strategy in this particular module seems to have been the communication links between the college lecturer and the employer.

A central pedagogic strategy to link forms of knowledge involves students gaining access to company resources; the value of these is that they bring workplace knowledge into the classroom.

In addition, case studies are used as a linking device between taught forms of knowledge and theory-in-practice because they can be designed (or selected) to illustrate the way in which the principles become embedded in everyday work practice. One of the college lecturers spoke of how (in the Strategic Issues in Financial Services module) he helps participants to understand the significance of a case in *its own terms* before relating it to their own organisations and practices. For him this is about supporting them to recognise and understand 'the key theoretical concepts' as they play out in the case and then to use those 'as a comparator for what is going on in own workplace'.

When introducing the notion of 'strategic issues' the lecturers starts by inviting the group to (a) 'look at what we mean by "strategy" in terms of long-term direction' and (b) think about the issue of 'intentions' as where a company wants to get to in the market. From there he moves to 'capability analysis' where actual cases from other industries and organisations are used to show strategy in action. One-to-one support is offered as a pedagogical strategy to help individual learners relate the case to their own particular work environment. The assessment task is also designed to support the linking of forms of knowledge. It operates at two levels. At a company level, the assignment requires learners to focus on particular stakeholders in their context. At a broader level, they focus on 'the impact of stakeholders on the environment and vice versa and impacts on

strategic outcomes'. The two levels of assessment are seen as integrated in that 'you have to do one to do the other'.

The 'case study' has the potential to act as a pedagogic mediating device between forms of knowledge by highlighting the iterative relationship between them.

Putting knowledge to work in the workplace environment (workplace recontextualisation)

Having seen how the pedagogic processes support participants to engage with the curriculum recontextualisation, we now move on to explore how knowledge is put to work in the workplace environment during the two to three days that FD participants are in the company, and how that relates to the college programme.

The process of workplace recontextualisation is inevitably affected by the organisation of in-company work experience and this is subject to considerable variation as a result of the work process more broadly. If participants are placed in a central company team, for example, Underwriting, Accounts, Claims (which have strong internal networks across the company, then they are likely to gain a 'big picture' of the company, that is, 'to see 99% of what goes on and get access to a lot more company resources than many full-time staff'. Whereas if participants are placed in a call centre where the work is intensive and target-driven, immediate job pressures may mean that they have fewer opportunities to gain exposure to the wider company context and to theory-in-practice.

The challenge is to maximise participants' exposure to rich learning experiences in the company.

Equally, access to company resources and participants' general progress on the course vary in accordance with the nature of the mentorship system. Mentors are drawn from line managers/supervisors, HR specialists or members of other operational departments who are interested in the idea and/or who see it as part of their career development. Their ability to enact their role as supporting workplace recontextualisation is significantly affected by the configurations of their personal qualities, commitment and their company experience and contacts.

One mentor, for example, reported how she used her 19 years with the company to facilitate participants' access to key practices and people: 'I worked my way through every claims department – starting in travel, then motor, commercial and Barclaycard'. 'I would know the people to go to, book in meetings for her [i.e. the FD participant], so she could get out and see different teams, see how they work and relate that back to what she was doing here'. One of the students referred to her as 'brilliant – she found placements we can go on and courses we can do'.

Another mentor who had 'worked [her] way up to team manager where [she] had 27 people to manage', drew on that experience by scheduling regular meetings with her FD participant and by encouraging other members of the work team to support her in whatever ways they could: 'other members of the team would also work with her on her assignments – she had various agricultural projects she was working on and team members who had had similar experience put her into contact with people'.

Occasionally mentors had the range of contacts to set up visits or opportunities to work shadow that constituted very helpful recontextualisation opportunities. For example, one mentor arranged for a participant to 'spend a day on a £billion bridge development in London for his Risk Management assignment'. The participant was very impressed by the value this experience added to his learning: 'You see insurance working and see things that aren't in the text books - it makes you interested - we had an expert with us for the day - it was really good – it was perfect'.

By contrast, where mentors had less experience of the company, participants could become very isolated in particular departments and not necessarily have 'anyone they could talk to'. Moreover, where company pressures restricted mentors scope for offering optimal commitment, participants were often thrown back onto their own resources.

The mentors chosen primarily held a mix of A-levels and NVQs.

Occasionally lack of a shared higher education experience meant that they were perceived not to 'understand the challenges of a degree nor professional qualifications and not to see the bigger picture or understand the FD'. On other occasions, however, a committed mentor with company experience more than made up for a lack of formal qualifications by, for example, making it their business 'to find out what assignments she was working on and what additional information she needed'.

All-round good quality mentorship (alongside appropriate placements) is vital in ensuring that all participants have equal opportunities to succeed on the FD and to develop themselves as future company employees. See Guidance Note: The potential of company based mentors.

One of the most significant factors that affects mentorship as a strategy for workplace recontextualisation is the continuous process of change that characterises many aspects of contemporary company life. The competitive nature of the industry has, over the last few years, led to almost constant reorganisations. Company staff and FD participants invoked the term 'reorg' (as a verb: to reorg) to encapsulate what was happening and its effects on the process of workplace recontextualisation.

One supervisor reported how her company: 'went through about three reorgs very quickly – one every six months'. Things can quite literally change overnight. In one company, the HR Department and the training budget were cut completely – and remaining functions became the responsibility of the Personnel Department. Trainees can very easily find themselves cut adrift, without supervision or mentorship: 'forgotten about for a couple of years'; 'if a department ceases to exist - where does the FD participant go?'

Sometimes this potential problem was anticipated and strategies were used to ensure that constant change did not disrupt the participants' learning experiences. One mentor-supervisor reported how, in the face of change, she took her FD participant with her: 'She came with me

when I moved around the organisation'. For her, this was part of the mentor commitment: 'My view is that if you take on responsibility for their development then you need to see it through'. However, she had to go to some lengths to achieve this. In one instance, where a whole team was disbanded: 'we wondered what to do with [the FD student] – there was no work at her level so we had to find her a position – using my contacts'. In this way she facilitated the participant's continuity (and later success).

Constant change works against the workplace stability that is often presupposed when work-based learning programmes are designed. Strategies are required to minimise disruption. One such strategy is for mentors to retain responsibility for their trainees when change happens.

Change also impacts upon college-company relations and the chain of recontextualisation that flows effectively from good and regular communication. At the outset of the FD programme, there was college support for company mentors. The Chartered Insurance Practitioner/college lecturer [2] had 'company linkages' as part of his brief, seeing his role as 'talking to the mentors' and explaining to them what the FD was about and what its requirements were. These included: 'the FD assignments and the projects the students would be doing'. It also included overseeing FD participants' access to company resources through their mentors: 'I would tell them [the mentors] that the students would need to find people in the organisation to get information from and that participants would need to secure opportunities for learning within the company - and generally the type of support the students would need in the workplace'.

Furthermore, he consolidated these forms of support through his ongoing monitoring role to ensure mentors had up-to-date college information and made suggestions about how individual students could perform better. Participants referred to his visits to their companies in favourable ways: 'There were a couple of times when he came in and met my mentor'; 'he did visit the workplace to see what we were doing and what would

transfer across^{xi}. There were favourable *unintended* outcomes as well because participants liked having a 'senior guy with credibility in the industry coming in to the company to talk about us'. His status *raised* their profile. The compound effect of organisational change over time, however, meant that he 'no longer knew who to go and talk to' in the companies. Participants appreciated his difficulties: the companies are 'huge' and 'it's too hard to break down the barriers'. As Head of Business School [2] put it: 'we are losing our contacts with [company] because of changeovers in staff etc'.

Similarly, when college personnel changed, companies lost *their* contacts. One mentor cited having 'zero link with the college, apart from through the students - I think I saw someone once in two years – I had no idea who to go and talk to about the FD inside or outside the company'. She was in dire need of more information: 'If I'd known at the beginning of the course – the things that would be looked at – even if I didn't have the contacts at the time, I could have found them'. She would have liked to know more about the 'structure of the course - the modules they were going through prior to them happening – and the assignments to be given and when'. Overall company ownership of the programme was deemed to be especially important: as one person put it, 'there's no clout'. The same person argued that 'clout' need not lie with HR or Training. Indeed it would be better if it did not: 'The clout should come from higher up' or from more technical areas of the organisation.

The challenge is to ensure that 'named' college and company people are visible points of contact for all those involved in the programme; a college liaison person is particularly important if mentors are to take a pedagogic role in relation to trainees.

Putting knowledge to work in the learning environment (learner recontextualisation)

The FD was viewed by college and company staff as having supported participants to develop the forms of knowledge, skill and judgement that could, in theory, equip them to progress onto higher-level study and to have a successful career in the Financial Services sector. Lecturers were impressed by the way that some participants managed to straddle workplace and academic demands in innovative ways, for example: 'using a call centre as a research project in its own right'. Company staff reported that participants were 'conscientious', that is, prepared to follow up contacts, 'determined', that is, wanting to succeed and using their drive and ability to get hold of information and use it purposefully.

One FD graduate has been promoted several times and is now a Resource Trainer Consultant working alongside department heads and directors. Another has moved from Indemnity Claims to Aviation: 'now I insure airports rather than dealing with solicitors' claims – much more interesting'. A third is happily ensconced in the company's cargo department where she deals with insurance for worldwide transit: 'someone phoned me once for a quote to ship a container full of gold dust - how do you insure gold dust?'

The programme seems to position trainees well for successful careers in the insurance industry.

Participants were inclined to invoke the notion of 'relevance' when referring to modules that supported their recontextualisation of knowledge in the workplace. Often, but not always, 'relevant' implied proximity of module content to work: as in 'tying into work'. For example: 'The Financial Advice module was fine as there is a mortgage advice arm to [the company's] work'. Participants also used the criterion of relevance when they felt modules had been less successful in supporting them to recontextualise knowledge in the workplace. 'The Risk Management

module *didn't* tie in with our work'; 'Law is just *far beyond* the things we would have the time and inclination to study – it's *so in-depth*'.

Not all participants conceptualised 'relevance' in such instrumental ways. One participant valued the International Financial Services module precisely *because* it was in-depth and concerned with the bigger picture of business and insurance: 'how economics, politics and globalisation all fit together and how the world really works'. For her, this module was a welcome relief from 'too much focus on insurance and work'. She saw the theoretical knowledge as 'expanding my knowledge of the industry and I could understand where I was in it'.

Modules that related directly to work were, in the main but not always, valued by the participants. This raises the question as to whether 'relevance' is the most appropriate criterion when considering the process of workplace recontextualisation.

Participants felt that dual accreditation both contributed to and skewed their recontextualisation of knowledge. Because the professional qualification is highly valued in the employment context - 'really good when I go for interviews' – the knowledge gained from study was sometimes valued more highly than the knowledge gained from the FD modules - 'In comparison to the professional qualifications the FD seemed lesser'. Moreover, the professional examinations were seen as connecting forms of knowledge i.e. theory (elements of business economics) and the business and insurance worlds: 'After that exam you understand how business works and how insurance relates to it - you understand what sorts of risks insurance will pick up and how economics affects the business and insurance worlds - when you have that knowledge you can build on it'.

Professional body accreditation has high currency. For some students the content of the CII units is valued for its general applicability not only its context specificity.

Participants also felt that the industry-specific and professional experience in the teaching team served to convince them about the value of modules, not only because staff had 'good knowledge of insurance law'; 'he's very competent – he has a good background – he knows about insurance', but also because the industry educators were able to forge relationships between and across forms of knowledge in a way that the college lecturers found more difficult. Congruence between the teaching style of the industry specialists and the discipline of workplace cultures was also noted ('clear objectives and materials and readings' etc). Conversely, learners sometimes struggled to see the connection between the more generic component of the FD and their work.

The workplace value system became dominant; congruence between the knowledge and teaching style of the industry specialists and the discipline of workplace cultures.

Access to documentary and human resources in the company, as we saw earlier, assisted participants to mediate between different forms of knowledge (i.e. discipline-based, company-based) and to recontextualise their developing understanding of these forms of knowledge in the workplace. From time to time, this pedagogic strategy though proved to be something of a mixed blessing, for example, the Risk Management module required participants to access company surveyors and accompany them on risk surveys. This did not prove to be possible. One company did not do surveys; it used other companies for the purpose and those companies did not want participants 'tagging along with them all over the country'. In the other company, risk surveyors could not take participants on site with them 'stupidly enough, for insurance reasons - we're not covered!'

Access to company resources has the potential to link forms of knowledge but the logistics of the process need to be very carefully planned given competing demands on the programme like dual accreditation.

Participants felt that when work placements were aligned with modules they were provided with an extremely valuable learning (i.e. recontextualisation) experience. Often, however, this was not possible, for example, in one company, participants were placed in claims, sales or planning; in the other company, two students were in commercial motor claims, two in the call centre, and one in marine insurance. This placed very different responsibilities on them. Instead of matching module content to workplace experience, participants had to 'store' placement experiences until such time as they undertook the appropriate module.

Participants acknowledged the value of 'orientation' placements, that is, an initial placement in a central company team even if they had not yet undertaken any modules pertaining to the work undertaken in that team. It enabled them to - 'know everything about the company so if I was to pass something to Accounts for example, I'd know what information they need to process something or if I deal with an underwriter, I'd know that he would want the claim history etc'.

Companies use short and long placements. Short placements tend to be fasters, as one student put it: 'they move us around – a couple of days with underwriters, brokers, accounts people, etc'. Longer placements aim to offer 'depth' experience in one department or function. Although the company assumed that placements would support the recontextualisation process, placements of 6-12 months, for example, often resulted in learners developing an unduly narrow experience base because learners spent too long engaged with the same standard of work; while too many short placements and 'moving around' ran the risk of limiting the experience to 'filing in one department then different filing in another'. As a consequence, the company began to rethink how to strike a better balance between placements and the process of recontextualisation.

Participants generally agreed that the nature of the placement (long-short; central or not) was less important than the overall planning, structuring and management of the process: 'I think the work-based learning needs to be very structured'; 'sometimes people didn't know what I was up to'.

Opportunities to learn from job rotation (however structured) are maximised if all parties to the process are clear about its purpose and their roles and responsibilities within it.

Generally speaking, participants felt that mentorship facilitated recontextualisation when mentors were able to support them to gain access to company resources. When this did not happen or was not possible, participants acknowledged that they had to exercise their discretion to gain access to company resources: 'I learnt to go out and find people myself'; 'there is a lot of responsibility on us to make contacts in the company and outside'. Not every participant, however, had the temperament and/or level of confidence to act in this way: 'I found it hard to go and talk to people' and/or 'hassle people in the organisation'. They recognised that although such actions supported their recontextualisation of knowledge it meant having to 'make a lot of phone calls – and being quite pushy' and this was very stressful.

Participants acknowledged that while they had to accept *some* responsibility for accessing resources, they were aware that a more consistent approach to mentorship in the companies would make their 'life easier as well as getting them to the right people in the organisation'. They noted that at the present time, the goodwill and commitment of individual mentors served as the glue that held the process together because the company was still coming to terms with mentorship at the undergraduate level. As one mentor reported: 'I cottoned on to the need to get participants to network within the organisation to get into areas where they were not working at that particular time'.

There are opportunities to develop and formalise the mentorship role so that all mentors are equipped to support learners in gaining access to company resources and in undertaking their college assignments and coursework. This could include mentor training.

Informal peer support amongst participants also facilitated the process of

learner recontextualisation: 'I've learnt more from my fellow students than my colleagues'. One FD graduate reported how he proffered his services in this regard: 'I've offered my services to the next cohort of participants - I showed them the research and training room which has loads of books, CDs, papers, insurance press papers'. He did this because it had taken him a year to locate the room and he was sure that the following cohort of participants would benefit from it. In a similar vein, one supervisor reported how a trainee she had worked closely with was able to 'share some of her pains and gains' with a student from the next cohort.

Peer support has a potential role to play in supporting learners to make relationships between forms of knowledge.

Participants were of the view that they would find it easier to recontextualise their developing knowledge and skill if the FD could become an integrated part of organisational life, possibly by linking the FD to company graduate schemes. As one of the FD participants observed, because the graduate scheme is well-established, there is a system (in one company at least) where 'someone who tracks where the graduates are by a colour indicator on a spread sheet e.g. green is "in right role and can stay" – another colour means "change needed"'.

They also felt that were parity to be granted between graduate recruitment and the FD then successful FD and Honours graduates would automatically come to the attention of managers when promotion opportunities arise. This would avoid embarrassing incidents where companies have expended resources recruiting outside graduates, unawares that 'they had trained 3 of us for 3 years with jobs here and paid for our degrees!'

There is much to be gained in linking the FD to company graduate schemes: for trainees' careers and for companies in terms of getting the best value out of their investment.

It was accepted by participants that there would inevitably be teething problems because the FD was still in its infancy. Participants also expressed the view that although existing college-company relations were supporting them to recontextualise their knowledge and skill, this would be enhanced immeasurably if the college and companies could pre-plan access to resources: 'What would be good would be if they all sat down with the modules and decided who could help participants the best - decide who can get participants out on risk surveys for example'; 'they could plan ahead and not leave us participants to sort it out for ourselves'. Nevertheless, such pre-planning (even if only in broad terms) could support the work of mentors (or indeed, groups of mentors could be involved in the task themselves), so that there was, for example, clearer reporting mechanisms within and across company and college as regards participants' progress and development, and greater clarity about what distinguishes the role of supervisor from mentor.

A comprehensive college-company planning, role allocation and tracking system.

Commentary on the modes of recontextualisation

This is a complex and ambitious programme seeking to combine disciplinary knowledge, professional requirements and work process knowledge and one that is still in an early stage of development. As such, it should have resonances with the experiences of course teams working on similar programmes. The exemplar shows how course teams address the disjunctions that can happen when intermediate-level courses, with possible extension to degree level, work to accommodate different types of knowledge that are underpinned by different logics. The exemplar shows how thinking through the 'chain of recontextualisation' can help course teams to identify ways to resolve/reconcile different logics in order to assist learners to put knowledge to work effectively.

In knowledge terms, Insurance can be seen as a sub-sector of Finance which recontextualises its content from Law and Economics in relation to the demands of professional practice (Bernstein, 2000). This is the traditional design logic of professional learning programmes accompanied by a sequencing principle whereby later modules build on earlier ones.

The main design features that support theory-practice relations are:
1) collaborative working; 2) the ways these relations have historically been conceptualised in academic and professional programmes.

The close involvement of a small range companies working collaboratively with a college in the selection, design and delivery of the FD results in a 'bespoke' degree that directly serves the companies' needs. This enables the participating companies to address known skills gaps and to link the FD to their internal labour market to support learner career progression. Notwithstanding the advantages of this, one frequently expressed worry is that the status of such a qualification will be undermined by its close employer links either because the content is overly narrow or because learners are tied too closely to the company rather than the sectoral context.

What is apparent in this FD is that although these are genuine concerns, the participating companies and college have tried extremely hard to recontextualise diverse forms of knowledge in such a way to militate against this happening. A determined attempt has been made to 'connect' (Boreham et al 2002) both sets of interest in an attempt to do justice to the underlying logics of different forms of knowledge, the workplace situation and to secure dual accreditation. This goal is never easy when the educational requirements of a profession are 'content-heavy' and have been formulated in relation to a particular tradition of professional learning (i.e. rote and test). In such situations, an understandable worry is that the pre-given professional specifications may dominate over the aims of the FD.

A major pedagogic challenge is therefore to ensure that the balance between the competing, albeit complementary, interests that was achieved in the design of the FD is reinforced, rather than undermined in the teaching and learning process. This is a particular challenge for lecturers with experience of teaching concepts and theories in relation to their disciplinary domain rather than in relation to the workplace context.

This tendency was well-illustrated in modules linked to CII accreditation, where the evaluative criteria are established by the professional body (even though the assessment methods have been amended by Chartered Insurance Practitioner/college lecturer [1]) and exert a 'wash-back' effect). In other words, the selection, sequencing and pacing of the CII the modules are strongly 'framed' and 'transmitted' (Bernstein 2000) in accordance with the principle that the you have to learn *this* before you can learn *that*, rather than accordance with a principle of 'dialogic inquiry' that enables learners to explore the relation between abstract principles and their practical application more iteratively (Wells 1999).

To rebalance the tendency to teach principles first and then to consider applications, the FD team have chosen to use companies' documentary resources as learning and teaching resources. Such documents serve as a 'boundary objects' (Tuomi-Gröhn and Engeström 2003), that is,

they constitute a resource that facilitates coordinated understanding and action between people with different areas and levels of expertise and, in the process, contribute to learners seeing 'connections' between module content and workplace experience.

One of the challenges of putting knowledge to work in a workplace environment is striking the right balance between a) offering learners work experience to sensitise them to work processes and b) designing the curriculum to both complement and extend their understanding of principles pertaining to the constitution of work (i.e. Accounts) and work practices (i.e. monitoring financial performance). On the one hand, job rotation enables learners to gain 'working knowledge' of work practices, social relations, appropriate behaviour, values, attitudes and protocols of office life. On the other hand, the teaching of principles provides learners with the reasons that underpin the rationale for Financial Services and the organisation of its work processes. Case studies and workplace documents can serve as the glue to link them.

Where experienced staff act as mentors by answering questions: modelling practice; arranging for additional placement experiences (to offer learners broader insights into the sector and company); providing structured debriefings to support the learner to make connections between the different forms of knowledge - workplace recontextualisation processes actively complement the pedagogic processes by developing learners' higher level capabilities.

This is most effective when there are strong professional pathways and 'participative memory' (Fuller and Unwin 2004) of those who have previously worked their way through the pathways. This is always a conundrum with new educational programmes, even ones designed in conjunction with workplaces. Until the first couple of cohorts have successfully completed the programme, college and workplace staff lack the 'participative memory' to fine-tune the workplace experience in relation to curriculum content. Consequently, despite the best intentions, from time to time learners had access to company working practices that

were potentially able to 'expand' their learning, yet rather too early in the process for them to benefit in the way intended.

Given the inevitable unpredictability of work in many departments and/or sections in a company, it is always going to be difficult to eliminate this from happening. The existence though of a strong 'participative memory' in the college and company is more likely to anticipate when this might happen and act to vary the placement process, arrange for additional debriefings and to address learners' concerns or ask the college to revisit curriculum areas that may help learners to shed light greater light on their workplace experiences.

Learners in this programme are actively seeking professional careers in Financial Services. Consequently, the experiences and resources that they most value are those which reflect their motivations and commitments, for example, case studies, extension placements/visits or access to industry-experienced professionals who can use the FD's conceptual content, alongside their own experience, to assist learners to make greater connections between theory and practice of finance.

Learners valued the opportunity to rotate through different sections of the company. On the one hand, they all appreciated that this diverse experience assisted them to learn how the 'rules' (i.e. what counts as an effective performance) might vary from one section to another, for example, Accounts compared with Customer Service. This diversity of experience alerted them to the importance of making the appropriate responses in that particular context. On the other hand, learners who aspired to undertake the Honours degree did not always feel that they had sufficiently learnt the 'recognition and realisation' rules (Bernstein 2000) that facilitate academic progression. They felt that this issue could potentially be addressed by broadening the Higher Learning Skills module to include greater support for academic work.

Learners appreciated that the FD was a very ambitious and complex programme that was still in its infancy and that both they and lecturers

sometimes lost sight of ways in which forms of knowledge potentially and actually connect. If learners and lecturers struggle to see any 'relations of signification' (Muller 2000) between programme designers' aspirations that aspects of work will provide some point of articulation with subject knowledge, then both parties find it very difficult to appreciate the connection between concepts and/or practices learnt in the classroom and their very different manifestations in the workplace.

In this regard, learners particularly valued the contextualising role of the industry educators in supporting their understandings of the theory-practice relations by offering clear examples of connections between the two and also helping them to develop the confidence to ask other lecturers, supervisors and mentors to explain connections. One particularly valuable strategy was for workplace mentors to 'de-and re-locate' (Eraut 2004) particular aspects of company knowledge for pedagogic consideration, as shown in the case of documentary resources, then returning them to the workplace context.

Recommendations

Different types of knowledge – disciplinary, professional, work process and generic – are characterised by different types of knowledge structures. To develop a coherent work-based curriculum within strong regulatory frameworks, it is necessary to:

- have course teams and advisory groups with a good balance of industry (currently active) and educational (i.e. course design and delivery) experience;
- keep in view the needs for the learners to have solid learning experiences that enable them to recontextualise and move between forms of knowledge.

Rather than following the traditional tendency in work-based programmes of seeking abstract mappings and connections between forms of knowledge (or between theory, procedures and practices), it is important to develop a more contextually-sensitive approach that seeks out *particular* connections between *particular* knowledge in use in different contexts.

To do so, it is important for the course team to:

- understand and articulate the structuring, contents and purposes of different forms of knowledge;
- keep this in view by ensuring that they develop a shared rationale for why different types of knowledge have been included in the curriculum;
- discuss with professional associations/bodies ways in which their professional qualification requirements can be customised to reflect the Integrity of the programme.

To convey the purpose of different types of knowledge to learners and to support learners to use that knowledge as a resource to engage with and

develop vocational practice, it is important to:

- use cases studies as both a resource for further learning and as a way of sensitising learners to work processes;
- develop and make explicit knowledge pathways and chains of recontextualisation;
- identify programme team members to take on knowledge brokerage roles to assist others to develop this capability.

To prepare learners for academic as well as vocational progression, helpful practices include:

- bringing the academic demands of a top-up Honours programme into the common FD module Higher Learning Skills thus supporting acquisition of academic recognition and realisation rules;
- using a variety of formative (i.e. peer feedback) and summative assessment (i.e. written assignments, projects) from the outset of the course to support engagement and build learner confidence and vocational identity;
- developing explicit synergies between modules to facilitate learner engagement and understanding.

In the workplace, it is important to:

- ensure that learners are offered continuity/stability and opportunities of consistent quality;
- be attuned to the development of 'participative memory' as a way of improving the quality of mentorship;
- support learners to access a wide range of company resources (documentary and human).

To support learners to make the most of their vocational experiences it is important to provide them with:

- a range of opportunities to ‘reflect’ on their workplace learning (i.e. formalised and structured de-briefing sessions with lecturers, mentors and peers) – first in its own terms and then in relation to theoretical elements of the course;
- opportunities to work with workplace mentors to ‘de-and re-locate’ particular aspects of company knowledge.

Finally, it is essential to recognise that these processes are only partly based on curricular and pedagogic strategies. They are also based in the composition of the cohort. Learners in this programme are committed to professional careers in the Financial Services; they are relatively well-positioned to advance their careers in the sector and the learning experiences they most value are those which reflect these motivations and commitments.

Appendix A: Professional pathway in Insurance.

Qualification Level	Educational Equivalent	Designatory Letters	Description
Fellowship	Degrees and Higher National Diplomas [Level 5]	FCII	Fellowship of the CII is universally regarded as the premier qualification for those working in the insurance industry.
Advanced Diploma		ACII	Associate members are those who have gone on to secure more advanced qualifications by completing the Advanced Diploma in Insurance or its predecessor the Associateship.
Diploma	Certificates of higher education – HNC [Level 4]	Dip CII	Qualified members who have completed a Diploma level qualification.
Certificate	A-levels [Level 3]	Cert CII	Qualified members who have completed a Certificate level qualification of which there is a range: Claims, Mortgage Advice, Equity Release, Life and Pensions.
Ordinary Member			Open to new entrants embarking on their first qualifications.

Adapted from: http://www.cii.co.uk/cii/membership/designations_titles.aspx^{xii}

Endnotes

ⁱNorwich has historic links with the finance industry and was the birthplace of Barclay's Bank. Indeed, Jonathan Barclay was appointed first chairman of the 'Shaping the Future' Board.

ⁱⁱSource: <http://business.edp24.co.uk/content/Guide/Future/story.aspx>. Accessed 11-11-07.

ⁱⁱⁱSee <http://www.cii.co.uk/generalinsurance.aspx>. Accessed 24-10-07.

^{iv}This is made possible by HEFCE's ruling that 'full-time' = 120 credits acquired over a 52 week year.

^vOne of the students referred to a subsequent two-year 'tie-in' period with penalties for withdrawal from employment.

^{vi}The official entry requirements for an FD are expressed as 120 points including a minimum of 40 points at A2 or equivalent, plus GCSE Maths and English or appropriate work experience. This is therefore a high-level application of the programme.

^{vii}The CII insist that one module retains the traditional three-hour examination method.

^{viii}These are Introduction to Business Management and Practice; Insurance Practice; The Individual in the Financial Sector; Financial Services, Regulation and Planning; and Risk Management.

^{ix}These are Higher Learning Skills, Professional Roles and Responsibilities and Work-based Learning (two modules).

^xThese are Information Management, Financial Advice, Quantitative Analysis, Strategic Issues in Financial Services, Customer Relationships and International Financial Services.

^{xi}The reference to transfer suggests a general grasp of the transfer principle amongst students.

^{xii}Last accessed 13-11-08.

School of Media, London College of Communication, University of the Arts, London

Foundation Degree in Media Practice

A programme to assist (mainly) mature learners to access a flexible, contract-based employment-labour market

Executive Summary

This exemplar describes and analyses a Foundation Degree (FD) in Media Practice. It serves an expanding employment sector characterised by predominantly freelance work, skills shortages at the intermediate level, and a lack of clear entry points. The programme was developed with the aim of bridging a gap between the nature and needs of the industry and conventional undergraduate-level higher education. The FD supports mainly non-traditional learners who demonstrate creativity, intellectual enthusiasm and aptitude to develop their vocational practice (i.e. mix of knowledge, skill, creativity and judgement).

Members of the course team are active in the industry. They are well-qualified and experienced lecturers, able to give learners access to their networks. This contributes to a high level of contract-based employment after graduation and supports learners to develop vocational identities and roles within a programme. Carefully structured work placements and final year projects help learners to develop academically as well as vocationally. This ensures that the FD is geared towards an industry-standard final production, and lays a foundation for those learners who aspire to progress onto the third year of an honours degree.

Exemplar overview

Media Practice in this context refers to 'moving image and sound' i.e. film, television, video and audio. It is a fast-changing and growing sector of the UK economy, especially in London which is renowned for its concentration of key media organisations. Of the 250,000 people that work in the audio-visual industries, over 50% are based in London. Although 250,000 represents only 1% of the total UK working population, the industries' contribution to the gross domestic product (GDP) is 2.4% signalling extremely high levels of productivity per capita – and the figure of 1% is set to increase threefold over the next 3-5 years (Skillset 2005).

A strongly performing and rapidly growing sector of the UK economy.

In its broadest sense, 'film-making' consists of five main stages. In the:

- *development* stage, the script is written and drafted into a workable blueprint;
- *pre-production* stage, preparations are made for the shoot - cast and crew are hired, locations are selected, and sets are built;
- *production* stage, the raw elements for the finished film are recordedⁱ;
- *post-production* stage, the 'takes' are edited; music tracks (and songs) are composed, performed and recorded; sound effects are designed and recorded; and any other computer-graphic visual effects are added;
- *distribution stage* the film is screened for potential buyers.

The audio-visual industry comprises a majority of small companies and a few large companies, and its workforce is mainly made up of people below the age of 35 (mostly graduates) and is approximately 65% freelance and/or self-employed. Smaller companies tend to be private production companies or facilities houses usually highly delayed in terms of management structures and team workⁱⁱ. Larger independent companies

tend to operate in a commissioning editor role in relation to Channel 4 and the BBC, effectively taking forward ideas developed by smaller companies.

An industry characterised by small companies, a youngish workforce and a strong, external labour market in which team skills are important.

Skillset is the Sector Skills Council (SSC) responsible for the audio-visual industries. It works in partnership with the Creative and Cultural Skills (CCS) and Skillsfast-uk, the SSCs with responsibility for, respectively, the Performing Arts, the Design Arts and Fashion and Textiles. Although the sector is well-served by wide-ranging further and higher education provision in the broad area of Media Studies, plus a substantial amount of informal, community-based education and training, Skillset concluded that much formal education and training provision was not meeting industry requirements: 'For too long the gap between the skills needs of the industry and the skills provision available has been too wide' (Skillset 2005). Interestingly, the FD course tutors concurred that there is a gap between higher education (particularly BA degrees) and the industry – 'there are no links' – they saw the FD as a way to 'bridge' that gap.

A programme with the explicit aim of bridging between industry and higher education.

Skillset's Sector Skills Agreement sets out three separate skills strategies for the industries:

- *Television* is the largest growth area with likely skills shortages at the level of business and creative strategy.
- *Film* is experiencing skill demands in the craft, technical and production areas – demands that are set to remain, given the complexifying nature of the industry.

- *Post-production* and distribution are growing employment niches.
- *Interactive media* is facing a shortage of technical operatives. Traditional occupations such as lighting, sound and editing are set to continue whilst new media are on the increase and there are opportunities in animation, commercials and the pop promo area (i.e. songs + videos).

Skills shortages exist at the intermediate level which much conventional education and training provision is not currently meeting.

The London College of Communication (LCC) is part of the University of the Arts, London - a collegiate body, formed in 1986 - bringing together a number of specialist colleges: the Camberwell College of Arts, Chelsea College of Art and Design, Central Saint Martins College of Art and Design, the London College of Printing, London College of Fashion and the Wimbledon College of Art – to form the ‘largest educational organisation of its type in Europe, embracing art, design, fashion, distribution and communication’.

Formerly the London College of Printing (established in 1895), the London College of Communication (inaugurated in 2004) has a long and distinguished international reputation in the professional fields of communications and media. It enjoys ‘its own established links with professional, cultural and industrial bodies – strengths which attract students of a high calibre’ (LCC 2006, 9). The college has recently become a Skillset National Screen Academy i.e. part of a network of centres of excellence in film education and training.

The LCC is the largest college in the University of the Arts and is arranged in five schools: Media, Graphic Design, Printing and Publishing, Marketing and Management, and Retail Studies. The FD in Media Practice is located in the School of Media which offers courses in Photography, Film and Video, Journalism, Media and Cultural Studies, Multimedia, Sound Design and Broadcasting ranging from foundation courses (the traditional

entry route to art-based degrees) to postgraduate diplomas and masters degrees. The school is relatively well-resourced: film and video stores, video editing and training room, TV studio, digital photography suite, multimedia laboratory, film sound editing studio, and print newsroom and radio studios.

The FD is located in a prestigious, specialist academic context: a recognised centre of excellence.

The main aim of the FD, now in its fifth year, is to respond directly to developments in the industry – particularly the independent part of the sector. Members of the course team are committed to ‘current working knowledge’ (course director) and to facilitating employment: ‘explicit links to specified employment destinations underpin all aspects of your studies’ (LCC 2006, 7). Links with the industry are extremely strong and highly valued. Indeed, it is now the case that industry people approach the college looking for FD graduates to employ.

Competition for jobs such as directors and producers is fierce. One of the FD course tutors noted how it may take several years for an FD graduate to get to the point ‘where they can produce something with any money in it’. To gain competitive advantage, FD graduates are recommended to take a broad approach to the multidisciplinary field. Different industries have different entry points and it is essential that the FD helps learners to understand how to access them. Access to:

- *video* – is via broadcast production companies and recording studios as production assistants, broadcast assistants, studio assistants, sound editing assistants, camera assistants or production runners;
- *television* – is via technical assistant, creative assistant, design assistant or background artist;
- *documentary* making – is via research assistants;
- *facilities houses* - is via technicians where the main jobs are in

maintenance, preparation of equipment and a small number of 'out with the kit' positions, especially in lighting.

The FD also offers learners opportunities to progress to the final year of the college BA Film and Video (Hons) or the BA Sound Arts and Design (Hons), subject to the availability of places, to gaining a merit classification in the FD Level 2 units and to successful completion of a five-week bridging programme held during the summer prior to entry. Approximately three-quarters of every cohort move directly into the labour market and one quarter onto the third year of an honours degree. This reflects learners' aspirations - as one of the course tutors put it: 'The vast majority are seeking to enter the industry, though some are seeking to move onto post-graduate courses such as the National Film and Television School, Westminster and LCC to study directing, scriptwriting, producing, cinematography etc'.

A programme that aims to face both ways i.e. towards immediate employment in the industry and towards further academic study. The bridging course is a linking device in this regard.

With its strong emphasis on skills acquisition, its two-year concentrated experience and its vocational orientation, the FD attracts 'students from a wider range of backgrounds' than traditional undergraduate degree programmes. In the 2006 intake, there were 140 applicants for 40 places. 40% of initial applications are from learners studying in sixth forms who normally 'self-deselect' before the interview stage (see below).

Applicants enter the programme in two main ways:

- through the college foundation course – the course team 'expect and recommend students to have completed a foundation course before they apply or to have some industry experience'. In reality, learners usually have very limited industry experience;
- through local advertising and word-of-mouth – they may already

have degrees and/or be looking to change direction within the industry, for example ‘an art director mature student who had worked on television and feature films and now wants to be a producer’; ‘a journalist who wants to become a producer’; ‘an architect who wants to be a film director’ and ‘a photographer who wants to be a cinematographer’.

‘I was 24 and didn’t want to do a three-year degree – I didn’t know what I wanted to do. I’d been an actress for 16 years – since being a kid. I wasn’t getting any work but I wanted to do something related to that. I fancied maybe factual documentary making – that was my initial angle – I ended up doing something completely different though...’ (Milly, graduated in 2004).

‘I wanted to find out more about how film works – I’d been a runner for a few years and a 2nd assistant director – doing bits and bobs - I’d always worked on production days which were crazy – I wanted to know what the director and producer talk about when they get together – I wanted to move into the creative and planning side of things’ (Russell, graduated in 2004).

Successful applicants tend to be in their middle to late-20s, up to late-30s i.e. representative of the age profile of the industry (although in the 2007 intake, the youngest learner was 19 and the oldest 51ⁱⁱⁱ). The demographic profile tends to change from year to year. As one of the course tutors put it: ‘recruitment is very challenging – it’s not as though we just foster relations with an FE college in Brixton’; and as a member of the Industry Steering Group that supports the course noted: ‘the range of students is rich and interesting’. The age and circumstances of the learners means that many of them struggle financially. They survive by doing part-time work; they take out large student loans: as one of the course tutors put it – ‘they struggle to make it to all the classes’.

Although official entry requirements are 1 A-level and 3 GCSEs (Grade C or above) or equivalent, ‘selection is very high – the calibre is good -

even compared to the BA courses' (member of Industry Steering Group). Prospective learners are sent a task - to write a two-minute script around a given dialogue - prior to their interview and invitations to interview are offered on the basis of completion of that task to which a number of candidates (usually the school leavers) do not respond.

Part of the selection process involves a group exercise (the course mirrors the industry in foregrounding team skills). Interviewers look for a combination of creative and intellectual abilities - 'flair' and 'heart' and an aptitude for working in media – with 'intellectual abilities' denoted by 'enthusiasm for the academic study of media practice and for intellectual enquiry'; 'the potential to develop their practical and creative ability through academic study' and a 'willingness to participate in their own intellectual development (LCC 2006, 91).

The course recruits (mainly) mature learners from a variety of backgrounds who can demonstrate creativity, intellectual enthusiasm and industry aptitude. See Guidance Note 'Assessing applicant suitability'

Putting knowledge to work in the design environment (content recontextualisation)

The FD development process began in 2001. The course director is central to the design process. He is an alumnus of the London College of Printing who has worked as a sound recordist and editor for television, music promos and feature films. Mindful of the need to bridge the industry-higher education gap, he established a steering group to inform the course design process: 'Industry links will be underpinned by the formation of a steering group which includes representatives from a range of relevant media employers who will guide course development and monitor the currency of the programme' (LCC 2006, 91). The steering group comprises individuals with broad knowledge and experience of the industry (including a couple of BAFTA award winners) and some former LCC learners. For example:

Karen, a screenwriter, novelist and script editor, is an alumnus of London College of Printing. For seven years she was Head of Development and Second Stage Funding at the European Script Fund (part of the European Commission MEDIA programme) which supported the development of independent productions in the European audio-visual industry. She has also been a development consultant for the UK Arts Council, script editor for the UK Film Council, an external examiner for the (LCC) BA in Film and Video programme and is currently external examiner for the London Film School MA in Screenwriting programme and the Solent University BA in Popular Fiction.

The steering group scrutinised the course proposals that the course team had devised. Karen recalled how she drew connections with her BA examining experience and the things she had observed (or not observed) there. For her, a particularly important ingredient of the proposed course was industry awareness: 'the importance of making contact with the industry – making learners aware of how the industry really works – particularly for those who want to start working practically in the industry immediately - it's a tough industry – they need to be able to find their way

around it'. She described the course team as being 'very open to our ideas'.

It is clear that the FD programme, the industry and employability were interlinked from the outset. The needs of the industry were the dominant organising principle for the programme.

The initial course proposal and subsequent revisions were informed by the then DfEE publications, HEFCE prospectuses and QAA guidelines and college policies, specifically: (i) the staff handbook on work-related learning which sets out institutional policy and best practice for work-based (i.e. work experience and simulations - 60 credits out of the total 240 FD credit requirement) and taught components, and institutional, learner and employer rights and responsibilities; (ii) the college credit framework – an 'integrative' development which links together all programmes of study^{iv}; and (iii) the cross-college validation and delivery model for BA (Hons) and FDs – the Communication Media Degree Scheme – which includes a common Core Studies and Personal and Professional Development programme.

The above guidelines, policies and practices embody slightly different priorities which a course such as this one has to balance.

The QAA subject area within which the FD falls - Communications, Media, Film and Cultural Studies^v - is a fairly new inter- and multidisciplinary professional area at the undergraduate level whose disciplinary origins lie within 'the arts, humanities and social science' and aesthetics (QAA 2002)^{vi}.

Communications, Media, Film and Cultural Studies is a 'new' professional area where there are many possible selections, permutations, emphases and interactions between disciplinary knowledge produced in a range of intellectual fields.

Knowledge produced within (and required by) the industry is brought into relationship with disciplinary knowledge in programme-specific ways.

The FD in Media Practice includes, as the table below indicates, a wide range of different forms of knowledge in its espoused outcomes:

Subject-based knowledge outcomes (i.e. technical knowledge at the levels of both principle [theory] and practice):

- Demonstrate knowledge of the principles, methodologies and technologies used in media production.
- Integrate established knowledge, skills and technologies of time-based media with those of contemporary approaches^{vii}.

Intellectual and academic skills (i.e. outcomes that refer to a range of ideational influences on the development of the contemporary media industry and its organisations):

- Demonstrate an understanding of the historical, contemporary and professional contexts of media practice.
- Evidence of awareness of the key strategic issues facing the media industry.

Practical and subject skills (i.e. outcomes that point to the development of aesthetic awareness and critical reflection on the one hand, and to creativity and competence at the level of individual practice on the other):

- Produce a range of work within your chosen area of media practice that will demonstrate your personal development and ability to work to a standard necessary for entry into the media industry.
- Adopt an evaluative and experimental approach in applying and using a variety of techniques and equipment in creating time-based media products.

Key attributes and transferable skills outcomes (generic employability-transferable skills i.e. Communication Skills, Information Technology, Working with Others, Managing Learning, Career Skills):

- Use a variety of key communication, interpersonal and enterprise skills required for effective practice in the industry.
- Identify career opportunities laying the ground for a career plan.
- Reflect on own strengths and weaknesses, set realistic goals, priorities and action plans.

Source: LCC School of Media, FdA Media Practice, Student Handbook, October 2006

This design process exemplifies diverse forms of knowledge structured into a higher education programme for vocational purposes. Course designers started with the aim of bridging a gap between the industry and higher education and the design logic of the programme is clearly industry-led.

The subject-based knowledge units reflect this most directly. They are organised according to industry functions (production, post-production etc) with employability skills embedded within them. The Core Studies units have a more traditional character and do not have a connection with employability-transferable skills.

In year one there are six units: Television Production; Sound Design; Film and Video; Core Studies; Personal and Professional Development (PPD), and, Production Skills 1. In year two there are also six units: Screen Writing/Script Development (20 credits); Production Skills 2 (30 credits); Major Project (30 credits); Core Studies (10 credits); Core Elective (10 credits) and Personal and Professional Development (20 credits). The course units can be represented thus:

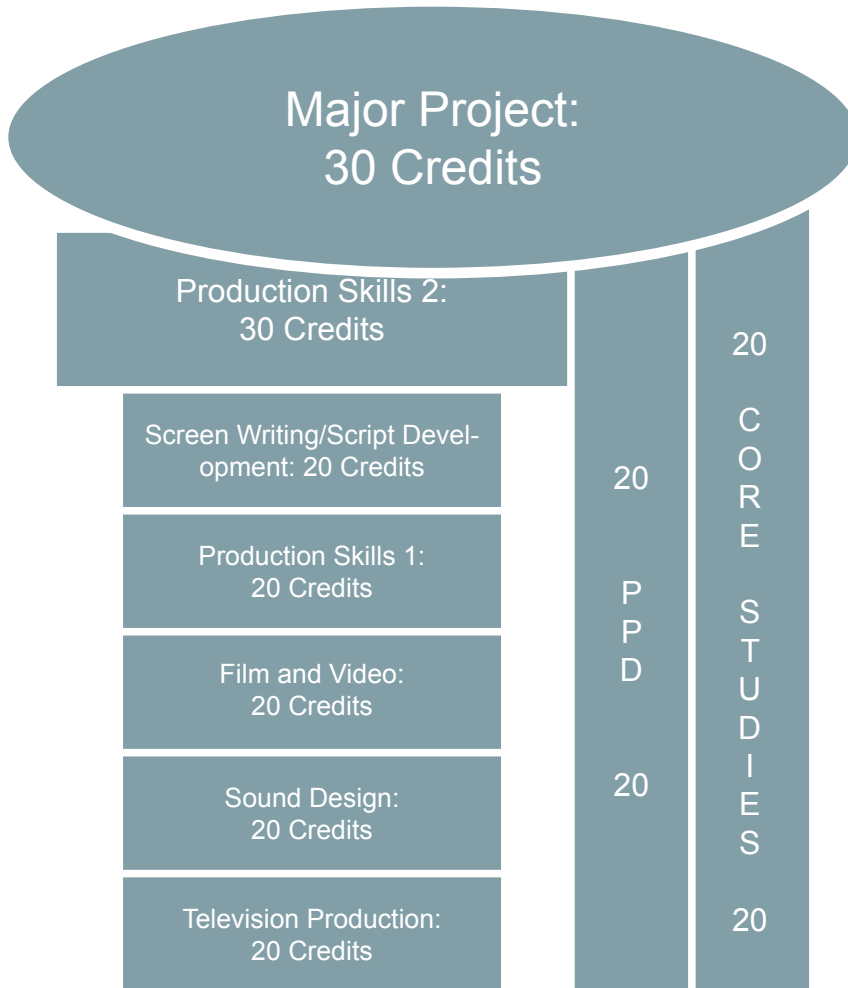


Figure 1: FD Programme Model

The three sequential units in year one (TV Production, Sound Design and Film and Video) are designed to foreground subject-based knowledge and to contextualise employability-transferable skills within that. For example, the intention of the first unit - Television Production – is to introduce students to the ‘practical principles’ that underlie that particular industry function and to provide them with an opportunity to explore and produce a live television cultural arts programme. This opportunity involves using camera, lighting and editing equipment-facilities. The unit therefore comprises mainly ‘subject-based knowledge’ (i.e. technical knowledge with principled and practical dimensions). The unit strikes a balance between analytical and practical issues by focusing on ‘the structures of visual text...and the relationship between form, word, and, visual culture in constructing meaning in visual communication’ (LCC 2006, 32), and endorsing the importance of communication and team work in television production so as to embed employability-transferable skills.

In parallel to the above three units, learners engage in the modules that are common to the college Communication Media Degree Scheme i.e. Core Studies and Personal and Professional Development. These are designed to introduce some of the more conventional components of degree programmes into the FD. The Core Studies module is organised around the themes of modernism and postmodernism, the first-year unit (The Histories of the Modern) contextualises the broad communications media field by ‘tracing the birth of the modern world’ through developments in philosophy, politics, aesthetic movements, technology and science’ (LCC 2006, 21). The FD course director referred to a process of ‘seeing the bigger picture’ of the industry. The content of individual lectures varies in terms of proximity to: disciplinary knowledge (e.g. ‘The Enlightenment Project’; ‘Anarchism’; ‘The Limits of the Free Market’); to technical knowledge (e.g. ‘Sound and Art of Recording’; ‘The Future of Interactive Media’) or to particular illustrative cases (e.g. Muhammad Ali and the Iconic Image’ and ‘Stanley Kubrick: Case Study’).

Core Studies addresses the ‘intellectual and academic skills’ outcomes of the FD by providing a contextualising framework for all programmes within the college Communications Media Degree Scheme.

The Personal and Professional Development (PPD) unit is designed to engage with academic development *and* career development i.e. 'designed to provide support for you in developing your study skills, monitoring and evaluating performance and setting your learning and career goals' (LCC 2006, 20). It acts as a spine unit through the whole programme and a space to focus on the development of the 'key attributes and transferable skill' outcomes of the course.

PPD is about the academic and career demands of media practice. It is a useful curricular space where different forms of knowledge come together.

A challenge that has long been recognised in these types of units is how to ensure that they do not become overly removed from both workplace and academia such that learners cannot readily contextualise their content and the activities and learning associated with them.

Production Skills 1 is designed to take place in a workplace or simulated environment. Most learners undertake an actual work placement although a few 'crew up' (common practice in the film schools) i.e. work with the second-year FD students on their Major Project. The detail of this will be addressed in the section of the exemplar called 'Putting knowledge to work in the workplace environment'.

The main design feature in year one is the building of broad and enabling knowledge, skills, capacities and dispositions as a precondition for the exercise of particular skills in the work environment. The subject-based units are central.

The whole of the second year is designed towards production. Like Television Production and Sound Design (in year one) Screen Writing/ Script Development balances subject-based knowledge, with principled and practical technical dimensions and employability-transferable skills.

The expectation is that learners will gain an understanding of professional script packages and hands-on experience using them.

Production Skills 2 is a strategically important module that has been designed to provide learners with opportunities to draw on all their knowledge and learning to research, plan and lead a project of their own choosing – from conception to completion: ‘they take a lead role in a production’ (course director). It is a holistic, practice-focused unit^{viii}. At the end of the unit, the course team and members of the Industry Steering Group make a selection for Major Projects: ‘It is envisaged that approximately ten major live action projects will go into production offering learners major specialist roles in the following areas - director, producer, cinematographer, production manager, editor and sound designer’.

In addition, learners select a General Elective unit from a wide cross-college and school-based programme designed to ‘broaden and deepen’ the undergraduate experience. These are essentially special interest employability- and industry-related courses, for example, ‘Creative Writing’; ‘Business Start-up’ and ‘Going Freelance’. School-based electives include ‘Dissecting the Still Image’ and ‘Cinema’.

The Major Project is where learners make a substantial personal contribution to a piece of work at industry (and graduation) standard. It is designed as the culmination of the FD programme providing the material for an End of Year Show which profiles the ten productions (and learners) to an industry audience.

In the Major Project learners pull together all the forms of knowledge that have constituted the programme i.e. the ‘techniques, practice, aesthetic and contextual background provided by the other units of the course’ including ‘individual abilities in solving the practical, creative and interpersonal problems of working in a group through an appropriate level of flexibility and professionalism’ (LCC 2006, 54).

The Major Project acts as an integrative ‘capstone’ unit for the whole course.

Putting knowledge to work in the teaching and facilitating environment (pedagogic recontextualisation)

The small core team of teaching staff consists of the course director (already introduced) and two course tutors (both of whom are part-time) who have, respectively, backgrounds in drama and documentaries. Both tutors are academically qualified and industry active each with approximately 20 years' experience in the industry. One is a director and writer - with a cluster of cinema and broadcast credits to his name. The other has production managed about 20 documentaries for television.

The career trajectories of the course tutors are indicative of the informal, networked and external nature of the labour market and the close links between the LCC and the industry. They both moved into the industry through word-of-mouth and on the basis of personal recommendation. Their paths crossed before they started teaching at the college in that they were both connected to a small independent company making social documentaries which had links with the college. One of the tutors had been recommended to that company by her masters' degree supervisor (she still works there on a part-time basis). The other undertook occasional work there as an editor whilst also working at the college.

The overriding teaching and facilitating modus operandi (reflecting the industry as a whole) is one of team work: as one of the tutors put it, 'we work well together – we often teach together and we always confer'. The core team is complemented by visiting tutors drawn from the industry steering group or from the industry more generally. Examples were given: a BBC news director, a BBC foreign news correspondent, a TV multi-camera director, a BAFTA feature film production designer, a Film London location manager, TV scriptwriters and so on.

The core FD team and its occasional lecturers all have strong industry identities and connections. Their pedagogic authority is largely vested in the industry.

Teaching and assessment strategies vary according to the type of unit and stage of the course . There are four main 'categories of study': taught/tailored study; access to facilities; self-directed study; and, work-related learning (LCC 2006, 87).

All the units that are concerned with the development of *subject-based knowledge* (i.e. Television Production, Sound Design, Film and Video [in year one] and Screen Writing/Script Development [in year two]) follow a similar teaching format. Lectures and seminars (*taught/tailored study*) are usually concentrated at the beginning of the unit; followed by supervised practice in specialist technical workshops utilising college equipment-facilities (*access to facilities*); accompanied by some *self-directed study*, for example, focused viewing of movies and reading; culminating in a *work-related learning* project such as creating a television cultural arts programme, producing a mixed, non-dialogue film with sound track, producing a short narrative film or writing a script package.

Although the balance between the 'categories of study' remains the same across the four subject-based units, the reading-viewing lists become longer and more in-depth: Television Production has two recommended texts plus several essential viewings; Film and Video has five essential texts, four essential viewings and a list of recommended texts that introduce learners to media's cultural, social and political context.

The sequencing and pacing of the teaching in the subject-based units is more formal and teacher-directed at the beginning of each module where technical principles are introduced with a gradual movement towards practice.

Simulations and live briefs (which are characteristic of media and arts programmes) provide an opportunity for learners to hone and apply work-related knowledge and skills in a supported environment.

In the *first-year* subject-based knowledge units, learners are assessed

as a group, although there are opportunities for individuals to evaluate their performances within a team and those of their peers. Associated documentation such as workbooks and risk assessment exercises is taken into account. The main rationales for group assessment are to 'encourage collaboration, trust and team work' (course director) and 'to make mistakes and be experimental and try a bit of everything'. Although group assessment is the *only* mode of assessment in Television Production, the other subject-based units also require learners to produce an individual 300-word critical analysis which rises to a 400-word piece in the year two Screen Writing/Script Development unit thereby signalling higher expectations in terms of linkages between the more principled/theoretical elements of the unit and practical work.

Group assessment reflects the team-based culture of the industry. Critical analysis is a good example of an assessment strategy that links the more principled and theoretical elements of the unit with the practical and operational elements.

Core Studies in the first year is a conventional lecture-based academic unit (*taught/tailored study*). *Self-directed study* constitutes 50% of the indicative unit learning time and includes using the unique range of opportunities that London offers for cultural study e.g. visits to exhibitions that relate to the lecture topic. Assessment is also conventionally academic. Each learner writes a review of an exhibition or exhibit and a 1500-word essay (which must include Harvard referencing). One of the course tutors referred to a *Core Studies* lecturer in the following way: 'he's much tougher on the students than we are - he doesn't let them get too lazy in their writing'.

The first-year *Core Studies* programme is a college-wide course based on the principle that the forms of theory it introduces to learners are resources for the rest of the FD and for their subsequent careers. Bridging this unit and the rest of FD course presents tutors with a particular pedagogic challenge because some FD tutors are not at all familiar with

this programme: 'I don't know – I've never sat in on the theory – we don't do theory – that's [name] – an academic with a very political background – I think it's quite popular'. The FD course director was, however, very clear about the possible linkages. He spoke of how learners might use the stimulus of a Core Studies lecture to do something in practice e.g. make a short movie about 'experiences of racism' linked to the lecture on Fascism or a movie on the 'representation of women in Japan' stimulated by a lecture on Gender and Identity. The basic idea, according to him, is that the 'theory affects thinking'.

Year one Core Studies appears to contribute to preparing learners for further academic study. A challenge is to find ways to encourage learners to use disciplinary-based concepts and ideas to stimulate creativity, especially when there is no cross-over in terms of teaching staff.

By contrast, in the second year, part of the Core Studies unit is taught by FD course tutors. Called Theory and Practice, it explicitly aims to link theory and creative process; theorist and practitioner: 'This unit provides you with an opportunity to explore the interplay between media and cultural theory and your own personal practice. You will seek to contextualise both your own work and that of the artists/practitioners who have influenced it in relation to the theoretical concerns specific to the medium and also, where appropriate, to wider debates concerning globalisation, environmentalism, development, new media etc' (LCC 2006, 61). In this way learners are supported in seeing and articulating the ways in which 'the bigger picture' refracts through their own practice such that they can locate and articulate their position and work.

The year two Core Studies unit creates links between forms of knowledge: theoretical concerns specific to the media field are linked to a wider range of discipline-based knowledge and ideas; artists and practitioners are located in relation to the above; learners' own work is related to the work of the others and to knowledge and ideas in the field and beyond.

The *Personal and Professional Development* units approach *taught/tailed* study via the use of reflective learning. In year one, learners undertake diagnostic self-assessment and formulate a profile of their skills against benchmark standards. They also reflect analytically on their ongoing personal and professional development. There is some formal teaching, mainly lectures and seminars addressing the demands of the higher education and the industry. In year two, the unit focuses on future opportunities in terms of career and academic progression. It deepens and extends the work undertaken in year one, offering clinics, linking learners with cross-college facilities such as The Enterprise Centre and organising a programme of industry guest speakers. Learners wishing to progress to the third year of an honours degree are advised on their options and given opportunities to taste programmes. *Work-related* learning dominates but there is some formal teaching – addressing research skills, media law and so forth. At the end of the year-two unit, learners produce a work-related exit portfolio or a proposal for research activity, depending on their future orientation.

There are different views in the course team as regards the purpose of the PPD: one perspective favours retaining its academic orientation so as to facilitate academic progression; the other school of thought supports a *less* academic PPD orientation to reflect the reality that most of the cohort move straight into industry. So, for example, rather than focus on the production of a CV, the emphasis would be on ‘pitching’ oneself i.e. more attuned to industry-specific practices and discourses. The senior lecturer with overall college responsibility for work-related learning sees advantages in using the PPD as part of an overall institutional strategy for widening participation in higher education/lifelong learning, arguing that the reason for non-traditional learners’ academic success ‘lies somewhere within the terms of confidence, support and development of learning process’ that this particular FD programme provides (Wailey 2007).

There will always be pressures in one direction or another – in this case should it be a space to address the widening participation/lifelong learning agenda or a space to further develop immediate employability skills?

The PPD tried to balance academic and career development goals.

Production Skills 2 has 300 indicative learning hours, 20 of which are designated *taught/tailored study*. Although the learners are involved in *self-directed study* towards their individual projects, tutors are available for support and advice, operating an open door policy. The tutors reported that some learners do *not* approach them for help: 'they want to do it on their own'. Of those that do, a common difficulty is finding a focus for their project. One tutor always advises learners to 'find something close to home and not too ambitious'. Each learner keeps a diary of their research and presents a live presentation of their personal project: 'they workshop and pitch their ideas in front of the whole group'. As mentioned, members of the industry steering group join the assessment team and act as industry assessors giving professional reactions to each presentation.

Staff act as resources to the learners but it is up to individuals to take the initiative to ask for advice. In putting together and 'pitching' their project proposals, learners work in a supported, sheltered environment but with all the complexity of a real-life industry production.

The Major Project (the final production) integrates all modes of study (as well as all forms of knowledge). Learners are operating independently in work roles in production teams. As the course director put it: 'When they're in production, they're off!' They have *access to facilities*; they are *self-directed* within their production teams and the main thrust is *work-related learning*.

Learners are working under real-work requirements and constraints. The artefacts used i.e. the equipment and facilities - are state-of-the-art.

Tutors aim to tune in to exactly what the learners are doing and to offer very targeted and focused tutorial help and coaching in relation to the production challenges they are facing i.e. direct engagement with their

work – not simply advice about it. An example was given of both course tutors spending two hours consulting on one project: ‘going through films shot by shot’ and witnessing up to 50 changes in a single production. Pedagogic opportunities are also presented to revisit and revise some of the earlier unit content e.g. ‘the classic way to do a documentary edit’. Flexible availability is seen as crucial at this time: ‘face-to-face, over the phone, as needs arise – students even come to our houses’.

Tutors noted how the quality of the Major Projects correlated with the amount of assistance requested and the amount of time learners spent working in the college: ‘if they ask they get so much’. Reflecting on ‘asking’, the tutors observed that: ‘sometimes those who think they are high-fliers don’t ask for help and their work actually doesn’t progress so well’. Very often learners realise too late how much the tutors had to offer – ‘then they kick themselves’. This has led the staff to rethink their roles in relation to the Major Project. They have decided to take the role of Executive Producer on the basis that perhaps learners have been granted too much independence (and, initiative’ which they do not always use) and they (the staff) have too little pedagogic control: ‘we felt we lost the plot a bit and need to rein it in’ – ‘they can still be creative but less chaotic’.

The pedagogic shift to coaching allows for more targeted and directed support and hands control to the learners themselves. This has been a gradual and supported process of transferring control of sequencing and pacing of teaching and learning.

The final assessment of the Major Project (i.e. all the production elements and activities, a component of which is about how individuals operated within their allocated role) is relatively straightforward and consensual. Tutors have been closely involved with each learner’s development over many months: ‘When it comes to assessing the final film productions – we all watch them – we mark individually – we discuss it with the students – we ask other students to ask questions too – and then compare all notes – its very rare there is a difference’. The assessment process incorporates

information gleaned from scrap books, notebooks, photos and self-assessment, particularly evidence of learners being very 'frank and honest' in their industry roles: 'the students have strong opinions – it's good to address different interests and different belief systems and how they interact with each other'. There is also a 500-word critical appraisal.

Putting knowledge to work in the workplace environment (workplace recontextualisation)

Placements occur during the last three weeks of the Easter term so they can run over into the summer period if opportunities permit. The work placements aim to benefit both learners and employers by:

- preparing learners for transition into employment, self-employment or freelance activity;
- providing opportunities for learners to evaluate course content against industry requirements and develop an understanding of the inter-relationships;
- supporting learners in developing an appreciation of the culture and practice of industry;
- building learners' confidence and developing their transferable skills;
- providing industry and potential employers with an opportunity to work with students and facilitate employment opportunities.

Adapted from: *Work-Based Learning Guide for Employers, Foundation Degree Media Practice Year One Communication Media Degree Scheme, School of Media, LCC (2005).*

The work placement explicitly espouses opportunities for learners to develop understandings of and evaluate the inter-relationships between forms of knowledge.

To ensure these aims are achieved, the FD course has its own part-time 'work placement coordinator' who is an alumnus of the college. She is a successful producer and production manager of documentaries, dramas, commercials and 'corporates', has her own small company and a good working knowledge of the industry. She has four main roles: generating and securing placements; setting up individual placements; monitoring

the placement experience for all parties, and participating in learner assessment.

Most placements are with production companies or facilities houses. The latter are easier to secure because the contexts are more stable than say crewing on film shoots. Generally speaking, learners gain more exposure to multiple roles and activities in the smaller companies because they are less fixed and hierarchical than the larger ones. Members of the course team also use their own industry contacts to secure placement opportunities e.g. with the small independent social documentary production company where one of the course tutors works part-time. Placements are viewed as 'precious' commodities, to be nurtured so that they can be used year-on-year.

As is often the case, placements rely on goodwill and networks both of which are forthcoming in this instance, because of the seamless relationship between the programme and the industry.

The setting up of placements begins in January of the first academic year. The coordinator spends time with the whole cohort, introducing them to the different areas of work in the industry and to the sort of placements they might be able to secure (either alone or with her help). She supports them by:

- encouraging them to think broadly and laterally about the wide range of possible jobs in the industry rather than focus on 'the glamorous end', illustrating this with concrete examples of the placement experiences of previous cohorts;
- explaining that 'they might have to be a runner to a director's 3rd assistant' or 'do photocopying at Working Title' but that all placement contexts, even background roles, provide learning opportunities - a learner 'may not get to do much but certainly can see pecking orders in action';

- stressing the importance of initiative, for example, a learner placed in a post-production context who animated a figure for an advertisement on behalf of a major telecommunications company: 'he met everyone, he listened, used his initiative, got to know the animation department, they asked him if he'd ever done any model animation, he said "a little", they said "try", they liked it and used it';
- encouraging learners to see a work placement as a 'first calling card' and as a space to 'make an impression' and show 'attitude and enthusiasm' which could pay dividends later. As one of the course tutors put it: 'If you're willing to learn, listen and are aware of what's going on around you in any situation – then people spot you and you'll go far'.

Learners are well-prepared for their placement, which is designed to enhance employability. They are encouraged to seek the learning in the situation: 'if you're smart you can make the best of it'.

Later in the spring term the coordinator runs a 'surgery' where individual learners can book timeslots to discuss the progress they are making in securing their own placement. They are supported in developing a learning brief for their placement setting out their aims. It is made clear to them that different contexts provide different participatory opportunities. The idea is that this time period coincides with the self-assessment (and other work-related) activities that learners are undertaking in the PPD unit such that the two processes can be mutually reinforcing.

Placement preparation also takes place at the same time as the second years are working towards their Major Projects. The work placement coordinator liaises with the course tutors in case some learners want to 'crew up' rather than take up a work placement. Crewing up tends to work best in circumstances where learners already have work experience and want to specialise in a particular role or with particular equipment. She cited the example of two mature-aged first years who wanted to be producers: they opted for crewing so that they could build up their

experience ready to act as producers themselves in their second-year final productions. Crewing often suits international students ‘who we feel would benefit more from working on second year productions’. Conversely, work placements tend to boost the confidence of learners with low expectations of themselves. Approximately 85% of learners undertake work placements and 15% crew up. From the coordinator’s perspective, in an ideal world, learners would have exposure to *both* work placement *and* crewing – as they are different experiences.

Placement preparation and the PPD unit are potentially mutually reinforcing.

Learner-employer dyads are selected carefully to benefit both parties. Over and above the ‘precious’ nature of the placement opportunity itself, employers are ‘colleagues’ and ‘friends’ who the course team do not want to ‘let down by sending them a lazy student’. The FD ‘Work Based Learning Employers Guide’ spells out the roles and responsibilities of all parties to the process. Employers are expected to offer ‘a learning environment in a work-setting’, to ensure supervision/mentorship for the learner and are reminded of their legal requirements regarding Health and Safety.

Once underway, the coordinator acts as first reference point in the case of any difficulties with the employer, mentor or the learner experience. She undertakes at least one visit to the workplace during the placement. Learners work through their placement briefs: this includes information gathering for their unit assignment and keeping a reflective diary where they consider how the work experience relates to their college studies. In some cases, given the nature of the industry, learner-mentor relationships are very informal. At the end of the placement the employer (preferably in consultation with the learner) completes an appraisal form covering the following employability issues (some of which are not assessed in the college context): punctuality, attendance, appearance, behaviour, confidence, initiative and ability to work in a team.

Diaries focus on relationships between forms of knowledge in a way that can be developed later. See Guidance Note 'Using reflective diaries'

The informality of industry relationships brings both opportunities and challenges: learners can gain access to high quality experiences and operate on an equal footing with professionals, but may have to engage with invisible rule systems that may be difficult to detect.

Back in the college environment, course time is allocated for debriefing learners' experiences of work placements and of crewing up. The course director reported how learners 'come back buzzing and very fired up'. For the tutors, debriefing is an enjoyable experience: 'I love to hear them talk about their placements - it's fascinating'. Experiences are shared and discussed via individual presentations. As the work placement coordinator pointed out, obviously some experiences are richer than others giving learners a clear sense of what they do (and do not) want to do career-wise while others realise that they have missed opportunities by not putting sufficient energy or initiative into their own placement. Those who crew up often find they have enhanced status in the group as a whole on the basis of the specialised nature of their experience. Some learners opt to find extra placements. Assessment takes place on the basis of the employer's appraisal, the learner's presentation, the diaries and a written report analysing the usefulness of the placement as a learning and career experience.

Learners are supported in bringing industry/ placement knowledge and learning back over the boundary into the college environment. It is here that links between forms of knowledge can be further developed and consolidated.

The above process exemplifies work placement as a planned and integral part of a programme. Placements offer opportunities for learners to negotiate contexts and cultures and to develop personal qualities appropriate for the industry. In this way, they get a chance to engage with

the frequently tacit dimensions of what is valued 'out there'. The ease with which most learners negotiate their placements and bring industry knowledge back into the course environment highlights how 'putting knowledge to work' is at the heart of this programme.

This is a concrete strategy to close the gap between the industry and higher education, one which values the industry as a site of knowledge production.

Putting knowledge to work in the learning environment (learner recontextualisation)

All the learners interviewed have developed successful careers since graduation - they have managed to recontextualise their knowledge and skill into the industry. They were helped by their work-based learning contact, the industry steering group or by the course team. Graduates reported how: 'Paul [course director] helps people get jobs after the course'; 'I got a job through Klaus's [course tutor] partner – as a project manager for the London Film Festival'; 'Klaus got me into screen writing and put me in contact with screen writers'.

Sometimes graduates offer their services on a voluntary basis to begin with: 'Spectacle offers students the chance to do a 15-day no-pay trial – if they are successful and if Mark has a vacancy, he'll take them on and pay them normal wages'; 'I joined an agency called Media Prospects – they get you into decent placements that are not exploitative'.

The course team are justifiably proud of the employment records of FD graduates and the fact that learners are recruited directly from the course into the BBC, Channel 4, Working Title, Tall Stories, Spectacle, Princess TV, Endemol etc. As is characteristic of the industry, most FD graduates work on a freelance basis. The following quote illustrates the type of portfolio career that frequently results:

'I have worked constantly since I left the course and am now looking for an agent. I was in Columbia with the British Arts Council. I was a camera trainee on a Nick Roeg film. I directed a short 35mm film. I was six months as a director's assistant on a feature film with John Hurt. I've directed a commercial...'

Some graduates have banded together and formed small companies and several instances were cited of graduates passing work to each other. Some portfolio careers include teaching, for example: 'I teach on the Young at Art programme for school students - introducing them to a

university environment – we make a digital production in a week - the rest of the time I'm freelance – camera work, workshops, editing and a small company with Russell and Gary [from the course] – I do a bit of everything'.

By the end of the programme most of the learners are extremely well-positioned to act effectively in the industry world.

The balance between the *practical* and theoretical aspects of the FD was consistently cited by the learners interviewed as having helped them to move into the industry: 'it was related to work'; 'more practical than the BA and less academic'; 'more of a hands-on course'. The fact that it was a two-year (rather than a three-year) programme was also important. But the opportunity to actually make a film or write a script was the most valuable design component in developing their vocational practice. The theoretical aspects were appreciated for 'going hand-in-hand with practice', 'never running against practice' and helping to 'get one's brain working'.

There were, however, different understandings of 'theory' and these inevitably led the learners to evaluate course components rather differently from one another. Some saw the PPD unit as theory (and thought it was a bit 'dry', particularly in the first year), others referred to the more teacher-directed parts of the subject-based units as theory i.e. where technical principles and concepts are addressed, while others felt that talking about movies was theory i.e. the analysis of the discourses and languages of media ('Klaus's lessons on narrative stick out as important and interesting').

Learners did not report disjunctions between components of the course suggesting that pragmatic syllogisms between forms of knowledge were successfully achieved, whether forged by the teachers or by the learners themselves. Learners value the work-relatedness of the programme. The subject-based knowledge is of most importance to them although 'theory' aspects (however defined) are also valued.

Learners had great respect for the course director and tutors - 'lovely guys'; 'fantastic' – their industry identities were seen as important: 'it's great that they work in the industry'. Tutors were praised for creating relaxed and easy learner-staff relationships and team spirit: 'Relationships with lecturers were great – easy to get on with – they treat us as equals'; 'you can talk about life on a human level'; 'the staff relate very well to each other'. The accessibility of the staff and the quality of support given were singled out for commendation: 'there's a lot of access to the tutors'; 'you get extra help and pointers from them'; the advice from the tutors was brilliant'. Support was available 'even when they had a lot on their shoulders'. Again, the team spirit came into play: 'if you go to see one of them you end up talking to them all'.

Clear assessment criteria have to exist otherwise these relaxed roles and relationships may cause difficulties between staff and learners when the former operate as assessors. Tutor-learner relationships mirror the collaborative nature of industry relationships but this also necessitates clear assessment criteria.

Access to equipment and facilities and learning from experience were valued as important to the recontextualisation process: as one learner put it, 'with film you can watch and read as much as you like but it doesn't mean you're going to be able to make a good film – you need to be able to make mistakes and just do things'. The live briefs such as creating a television cultural arts programme, producing a non-dialogue film with sound track, producing a narrative film etc were taken very seriously by learners. They reported how they were working at the highest technical level in these activities. The embeddedness of the industry in the subject-based units was underscored by the way learners spoke from their 'role' position rather than 'institutional' position, for example: 'the director and the producer need to be responsible to the rest of their team, because often those team members are working on other projects or they may have other jobs – you need to be responsible for other peoples' time – mustn't waste time'.

These teaching strategies support recontextualisation: most particularly the availability of knowledgeable staff, access to high quality equipment and facilities, learning from experience and the opportunities to adopt industry identities within the programme projects.

Most learners undertook a work placement, examples included: working with an independent film-maker to edit a film about violence in South Africa; working with an entertainments television company; doing camera work with an independent social documentary company; filming focus group discussions for the London Olympic bid committee. In the main, they felt well-prepared and enjoyed a productive experience as part of a (usually) high-status industry team. They valued the additional dimension of networking that placements offered (i.e. over and above the networking opportunities provided by the course as a whole): 'the best thing was the networks - you start to build up a network of people when you're on the course - meeting people was the best - talking to people with the same interests and being in that environment'. Those who crewed up also felt it had been a valuable learning experience: 'I didn't have the confidence to go on placement – it was brilliant working on a second year film in my first year'.

Learners appreciated that the amount of effort they put into the programme correlated to what they gained: 'its reciprocal – if we make the effort so do they [i.e. the tutors]'; 'the one thing that has come across about the course is that unless you take yourself there nothing is going to happen'. However, some learners struggled to appreciate that 'university is what you make it' until it was almost too late, and it was reported that some of the younger learners were insufficiently mature in their learning style to benefit. Several learners would have preferred a more structured approach, for example, 'I found that I wasn't a very good learner – maybe I needed less flexibility'. [This is something that the course tutors themselves have noted in their decision to act as Executive Producers in relation to the Major Projects in future].

Social learning was another important strategy and helped to maximise

the learning potential of the programme. Learners reported how they learnt from each other, from seeing each others' development and mistakes. One person suggested that learning could be enhanced if there was more communication between the FD and BA students. She recognised a status difference in that 'the BA people think they are the thinkers and we are the "practicals"'. A physical difference also separates the two courses: although they are in the same building they are on different floors. She argued that mutual benefits could accrue from greater collaboration, for example, analysing movies together.

The FD paved the way for some learners to progress onto the third year of an honours degree via the bridging course, the aims of which were to: familiarise learners with approaches to learning at honours level, develop the skills required to write a dissertation and introduce the assessment methods and criteria in use at that level. Two pieces of work are undertaken: a self-initiated project proposal and an outline dissertation proposal.

Although the learners who progressed to honours noted changes in the nature of staff-student relationships and a different ethos and atmosphere, they were very successful – and several have progressed further to masters-level programmes. In this way, the FD + bridging *does* seem to provide a means of widening participation in higher education, which as mentioned, the director with overall college responsibility for work-related learning would like to see developed further through the PPD.

A FD programme that succeeds in facing both ways: towards the industry and towards the academy: all the more of an achievement in a highly unstructured labour market.

Commentary on the modes of recontextualisation

One of the challenges of designing a Foundation Degree is successfully to manage a complex chain of recontextualisation – across design, teaching, work placement and learning dimensions to assist learners (i) to mediate between the theory and practice in all the experiences offered to them; (ii) to develop the form and level of vocational practice required to move into a specific vocational field; and (iii) to develop the knowledge base to progress into the third year of an honours degree.

In the case of the Media Practice, the FD is used to address a general rather than a specific vocational need. The task of determining what content is recontextualised from its disciplinary origins and from industry practice is primarily undertaken by the course team in consultation with the industry steering group.

This process of ‘reclassificatory reconceptualisation’ (Barnett 2006) involves selectively taking theories, concepts and methods from disciplinary fields and practice-based concepts and techniques and incorporating both into a common curriculum framework that:

- encapsulates core industry functions (production, post-production etc.);
- mirrors the contingencies of the labour market (the paradox of self-employment and team- and network-based production);
- enshrines the traditional theoretical components of an undergraduate degree (as a resource for individual creativity);
- supports career and academic progression through the PPD.

One reason why diverse forms of knowledge such as film theory, technical knowledge and practical skills can sit alongside each other is because the team is committed to ‘curricular holism’ (Stenhouse 1975).

They employ the following pedagogic strategies to achieve this goal.

They: (i) built in a number of opportunities for learners to appreciate the relevance of Core Studies lectures that are structured around discipline-based theories and concepts (which may fuel their imaginations and allow them to think more deeply about practice-related issues) and around practical principles and specific propositions about particular cases (which may serve as heuristic resources when confronting new challenges); (ii) structure and sequence the learning activities – critical analyses, practical projects etc - so that learners are positioned to continuously draw on the aforementioned ‘content’ resources; and (iii) provide individual and group forms of formative assessment so that learners regularly receive feedback on their work, the work of others and the merits of different aspects of the FD curriculum.

The outcome is a multifaceted curriculum consisting of: (i) traditional higher education subject-based technical knowledge units with strong industry relevance and embedded employability skills; (ii) a Core Studies element that provides a disciplinary and intellectual orientation; (iii) a PPD which focuses on employment as well as academic progression. Thus, the curriculum provides learners with access to a rich vein of different but complementary forms of theoretical and practical knowledge (Norton-Grubb 2006).

The course tutors and other lecturers contributing to the FD start each subject-based unit with a ‘visible’ pedagogy (Bernstein 2000) and then engage in a process of ‘gradual release’ of pedagogic control to the learners. For example, each unit begins with the clarification, definitions and origins of key concepts and their significance to the field of media practice. Opportunities are provided for learners to consider and reflect on the inductive aspects of technical knowledge. Over the course of a unit, the course team gradually relax their control over the sequencing and pacing of teaching and learning so that learners can undertake more practical work at their own pace and in line with their own creative and vocational interests.

The principle and practice of ‘gradual release’ is the main way of putting

knowledge to work across the whole of the FD programme:

- it begins with the sequencing of modules towards practice over the two-year period – culminating in the Major Project;
- it underpins the iterative relationships between knowledge and practice across *all* of the modules (supported by the knowledge and experience of the tutors);
- it is reflected in the increasing amounts of time spent in *access to facilities, self-directed* and *work-related* 'categories of study'.

The actual instantiations of the principle of gradual release are under constant review. Tutors are aware that it is important to strike the right balance being over controlling or too reliant on self-directed learning. They have re-balanced this principle a little in the Major Project to strengthen the pedagogic framing to increase learner engagement and maximise development. This has involved tutors taking a more pro-active role in the early stages of the formulation of learners' ideas for their project by acting as coaches rather than points of reference for learners.

The work placement coordinator, the course tutors and the learners all make active albeit different contributions to workplace recontextualisation. Although well-structured and planned, the placement is a relatively minor part of the FD programme. Consequently it is less an opportunity for learners to develop particular forms of vocational practice, and more an opportunity for them to participate peripherally and legitimately in the culture of a 'community of practice' (Lave and Wenger, 1991), that is, to gradually begin to grasp working roles and relationships, identify areas in which they would like to specialise, and develop a network to assist them to realise their ambitions in the de-regulated, freelance film and TV labour market. They also have the opportunity to use the equipment (artefacts) they have been introduced to on the course in an actual as opposed to a simulated production process. This serves to consolidate their understanding of the shared symbolic elements of the course and the industry.

Moreover, the placement is an opportunity for learners to be experimental, inquisitive and creative and to take initiative. This is enhanced significantly if learners are placed with a company or network that is characterised by less hierarchical and more informal working relations because it enables them to move quickly from the periphery to the core i.e. to take the fullest possible role in the time available. This movement and the accumulated experience that goes with it inevitably enhances learners' awareness of what is valued in the industry and hence their employability.

The placement presents the course team and the learners with a dual challenge: relating the 'horizontal discourse' from the field – local, segmented and context-specific – to the 'vertical discourse' (Bernstein 2000) of the course; and, 'progressively recontextualising' (van Oers 1998) practices learnt in the university or in the field in changing circumstances.

One way in which the tutors tackle the former challenge is to encourage learners to use a reflective diary to connect the theory and practice they have been introduced to during the course to the actual practices they encounter whilst on placement. The diary becomes a 'boundary object' in that it is brought into the college post-placement debriefings to facilitate further consideration of the points of connection and disconnection between the content of college-based modules and the demands placed on learners during the work experience (Gronin & Engestrom, 2003). This exchange provides a 'virtuous circle' for the FD: learners use theory to apprehend connections in practice that are not necessarily susceptible to observation, and tutors use learners' accounts of and insights about their work placement to deepen and enrich the experiential base of the FD – this constitutes a form of double recontextualisation of workplace knowledge.

One way that tutors tackle the latter is to encourage learners to use work placements as 'first calling cards' and to try to negotiate further

opportunities either whilst on- or post-placement for developing their 'vocational practice' (Guile and Okumoto 2007), that is, the blend of knowledge, skill and judgement that makes them employable.

The FD evaluative criteria are framed primarily to support transition into the field of media practice, rather than progression into the third year of the FD. It is not clear whether this framing was intentional or an unintended consequence of trying to strike a balance between the two purposes FDs are designed to serve i.e. transition to work and progression into further study. The combination of: (i) participation in the social and cultural practices of the college-based components of the FD; (ii) the work experience; and (iii) the individual-group approach to assessment, plays a significant part in developing a fledgling vocational identity *and* a prospective learner-identity.

Given that most learners were mature entrants who had a clear sense of career direction, it is hardly surprising that they successfully used the FD to support them to develop a vocational specialisation and to become an entrepreneurial professional well positioned for success in the labour market. The acquisition of a learner identity is more surprising. A significant number of learners chose to progress to honours degrees and beyond. Clearly, the FD assisted them to grasp the recognition and realisations rules for academic success (Bernstein, 2000). Arguably, based on the evidence presented in the exemplar it is due to the particular combination of the PPD units, Core Studies, and, the pedagogic relationships in the subject-based units especially their intellectual and analytical components where learners discuss narrative, genre, discourse etc. What is less clear is: what processes, practices and forms of learner agency supported this development?

Furthermore, what is also interesting is that the impressive rate of progression associated with the FD supports evidence that alternating between weak and strong framing can sometimes weaken the conventional correlation between social class and educational achievement (Muller 2000). Other factors that weaken this correlation

might be the strong emphasis on enrolling mature learners with high-levels of both initial qualifications and motivation.

Recommendations

All exemplars are embedded in the conditions of their success. This particular exemplar has a particular confluence of conditions that support it – namely, its London base, the reputation and status of the providing institution, the industry-active and industry-connected identities of the staff and the employment opportunities it provides for learners. An holistic programme has been created, able to respond the changing nature of the industry.

Nonetheless, the FD model and approach follows (in part or whole) other successful vocational higher education programmes. It is important for anyone seeking to replicate this model to appreciate that the ‘whole’ consists of a number of very interesting curricula, pedagogic and assessment strategies all of which contribute to the success of the programme.

To integrate different types of knowledge – disciplinary, technical, practical and generic – which are characterised by different types of knowledge structures – to make a coherent work-related curriculum, it is necessary:

- to have a course team and a steering group that possess a good balance between industry (currently active) and educational (i.e. course design and delivery) experience so that the programme has a ‘purchase’ on the industry;
- for the team to identify the appropriate content (i.e. theory and practice) and the way in which that content can be recontextualised within both the national specifications for the FD and university’s specifications for their own degrees.

To use this experience to ensure that:

- modules are sequenced so as to build upon another thematically and practically;
- there is a shared rationale for why the different types of knowledge

- theory as a resource to support future thinking, work knowledge as a resource to sensitise learners to the nature of work, generic knowledge to sustain motivation and engagement - have been included in the curriculum;

- there is (from the outset) a variety of formative (e.g. peer feedback) and summative (e.g. written assignments, projects) assessment methods to support engagement and build learner confidence and vocational identity.

To convey the purposes of different types of knowledge and to support learners in using that knowledge as a resource to engage with and develop vocational practice, it is important to:

- design the curriculum in accordance with the principle of gradual release (i.e. allow learners to increasingly assume control over the learning tasks and the pacing of them) in each module and in each term/year of study;
- use the subject-based units and Core Study lectures to provide learners with a range of different opportunities to consolidate their understanding;
- use the Major Project to deepen this understanding and to maximise practical skill development;
- provide learners with feedback on their progress from a number of sources: the PPD process, the course team, industry experts, peers etc.;
- require the course team to draw on a variety of teaching and learning methods – lecturing, modelling, tutoring, and coaching – to support learners at different stages of their development.

To ensure that learners are offered a diverse and stretching range of work placement opportunities, it is very helpful if:

- a work experience coordinator can be appointed who is active in the industry and therefore able to draw on her/his networks and contacts

to generate placements.

To support learners to make the most of their vocational experiences while on placement, it is important to provide them with:

- a choice of placement opportunities (e.g. work experience/ crewing up) to reflect their preferences at different stages of their development;
- a range of methods (e.g. diary) to 'track' how far they are developing their knowledge, skill and judgement;
- a range of opportunities to reflect on their workplace learning (i.e. formalised and structured de-briefing sessions with tutors, industry experts and peers) in its own terms and in relation to the course-based units (and the knowledge therein).

Finally, it is essential to recognise that the success of the above processes is only partly based on the aforementioned curricula and pedagogic conditions. It is also based on:

- the composition of the cohort (i.e. mainly mature-age learners) who are actively using the FD to develop their vocational practice to enable them to make a 'horizontal' move (i.e. into a different sector or different part of their current sector) in the labour market.

They accomplish this goal in a variety of different ways. Some learners:

- use the course to decide whether to follow a creative or technical path in the labour market or to progress to further study;
- use the Major Project to demonstrate their creative qualities, their technical abilities and their team-working skills;
- use the work placements as opportunities to: (i) apply their knowledge and skill; (ii) develop their vocational judgement; and (iii) identify which networks they need to join so as to help them to move into their chosen niche in the labour market.

Endnotes

ⁱPre-production and production are usually linked in practice.

ⁱⁱFacilities houses are usually London-based. They own and maintain high-value equipment, which they supply to all sectors of the industry, either with or without technicians.

ⁱⁱⁱAccording to the course director, the more mature learners tend to be more successful in the labour market and ‘they make better films’.

^{iv}The FD spans the first two levels of the credit framework. Level 1 is introductory and a foundation for further study. Level 2 is intermediate and developmental.

^vThis is the QAA subject area for which there is a benchmark statement at honours level. Benchmark statements describe what gives a discipline coherence and identity (QAA 2002).

^{vi}Taken still further is a taproot to Axiology of which Aesthetics forms part. Axiology is concerned with what counts as quality or value: the ubiquitous ‘But is it Art?’ question.

^{vii}Time-based media refers to any data that change meaningfully with respect to time. Audio clips, MIDI sequences, movie clips, and animations are common forms of time-based media. Such media data can be obtained from a variety of sources, such as local or network files, cameras, microphones, and live broadcasts.

^{viii}The holistic, practice-focused nature of the unit is reflected in the recommended readings, for example: Langham, J. (1996) ‘Lights, camera, action! Working in film, television and video’ (London, British Film Institute) and Alberstat, P. (2004) ‘The insider’s guide to film finance’ (Oxford, Focal Press)

Commerzbank in partnership with the European College of Business and Management

Company Training Scheme in Banking with Higher National Diploma

A programme for new entrants that embeds a Higher National Diploma in a company training scheme.

Executive Summary

This exemplar describes and analyses an employer-led partnership between Commerzbank, a German bank with a branch in the City of London, and the European College of Business and Management, a London-based private sector college. A Higher National Diploma (HND) in Business (Finance) is embedded into a company training scheme. This means that trainees, carefully selected from secondary schools in less privileged London boroughs, are recruited as employees rather than students i.e. in accordance with company policy.

The company and college share a common value system, based on the use of education-industry partnerships to ensure that education is a productive investment for all parties. Trainees are offered supportive environments for learning and working based on agreement between the college and company about respective areas of responsibility and clear college and work-based strategies to assist trainees to make iterative relationships between theory and practice. With the result that trainees are successful – in both career and academic terms – and the bank recruits the employees that it wants.

Exemplar overview

With headquarters in Frankfurt, Commerzbank is the third-largest bank in Germany (after Deutsche Bank and Dresdner Bank). It is mainly active in commercial banking, retail banking and mortgaging, with a nationwide network of branch offices in Germany and across mainland Europe. The bank also has representations and holdings in major commercial and financial centres in Asia and the Americas. The City of London branch is regulated by the Financial Services Authority for the conduct of *investment* business in the UK. In its City branch, the bank employs German and British staff – 850 in total.

The European College of Business and Management (ECBM) was established by the German-British Chamber of Industry and Commerce in 1988 and is its officially accredited collegeⁱ. It enjoys close links with major corporate, blue chip companies, namely: Siemens, Bosch, Commerzbank, Würth and Deutsche Bank. Increasingly, the college is positioning itself as an ‘employer academy’ acting as a preferred supplier offering higher education and vocational training in Business and Management that feeds into company recruitment, training and human resource development strategies.

The company and the college operate in a UK version of the long-standing, culturally-specific German approach to vocational education and training, one which is accompanied by high levels of public responsibility and social partnership; underpinned by legal obligations and regulations, and, characterised by employer commitment and preparedness to invest. The UK version is designed to facilitate a ‘culture of training’ which ensures the sustainability of training initiativesⁱⁱ.

A context in which companies expect to make an investment in their employees.

As such, it stands in stark contrast to the prevailing UK context, with

a weaker national economic strategy, and to UK employers, with less of a history of consistent investment in, and valuing of (especially undergraduate) training and for whom initiatives tend to be based on particular individuals, funding circumstances or company priorities which are all too often short-lived because – ‘people go where the money is – because its free or subsidised - when the money runs out so does the scheme’ⁱⁱⁱ.

ECBM is a small, informal college of some 15 staff (a mixture of full- and part-time), a deputy director and a director. The director referred to it as resembling a ‘supercharged business department in a large college’ with a throughput of 600-800 students per year. It offers flexible and customised professional development programmes, a fast-track MBA (incorporating a Diploma in Management Studies [DMS]) and the Bachelor Degree Entry Programme that is the subject of this exemplar^{iv}. The college is in the unusual position of being able to provide demand-led, bespoke programmes on a full-cost recovery basis to companies who ‘can and will pay’. Indeed, the college actively counsels the companies it works with to resist accessing public funds even where they are available so as to ensure that the demand-led nature of provision is not compromised by external funding requirements and conditions.

The Bachelor Degree Entry Programme incorporates an Edexcel-accredited BTEC Higher National Diploma (HND) in Business (Finance). Although various companies include this programme in their training schemes, the focus here is on the distinguishing features of Commerzbank’s ‘trainee programme’ (as it is referred to in the company) namely that it forms part of a recruitment strategy – which has an explicit educational dimension and a policy of identifying and employing the best of local talent.

A company recruitment strategy with an educational dimension.

To help realise this goal, the services of an intermediary charitable

organisation called The Brokerage Citylink are used. 'The Brokerage'^v is a membership-based partnership between City employers, job seekers and schools with the aim of increasing the number of residents of boroughs close to the City who earn their living in the financial and business services sectors. The Brokerage places an emphasis on diversifying workforces, in an attempt to enhance companies' existing recruitment strategies and channels.

Working across eleven inner-city boroughs: Southwark, Tower Hamlets, Lambeth, Greenwich, Lewisham, Newham, Hackney, Islington, Camden, Westminster and the City, The Brokerage offers school students and job seekers a range of opportunities and activities that put them in touch with aspects of working life and career possibilities in Finance and Business. The Brokerage selects potential candidates for Commerzbank, providing full support to them during their application process, for example offering workshops covering practical areas such as presentation skills, CV preparation, interviews and application forms as well as sector-focused sessions on Banking, Accountancy and Law.

Commerzbank conducts the formal interviews for the trainee programme – comprising two interviews each of half an hour. The first focuses on candidates' general interests and achievements; the second on college requirements. The bank makes the final decision, referring to the college director if there is any doubt in the area of academic ability. In the most recent cohort there were 35 applicants of which 19 were selected by The Brokerage and interviewed by the bank; 7 of these were selected but 4 of them were referred to the college for a second interview; 3 of those 4 were approved: therefore a total of 6 trainees was taken on by the company. Successful candidates commented on the rigour of the process: 'it's really hard to get in'.

The bank and college were extremely complimentary about The Brokerage's selection processes and candidates recruited in this way could not have been more highly praised. The approach seems to be to target young, gifted and (mostly) black students in less privileged schools.

These tend to be students likely to achieve grades such as B, B and C at A-level. The rationale for this is that such students ‘have worked *really* hard’. There was a general sense that the ‘triple-A student’ is not appropriate recruitment material for this type of company programme: ‘you want people you can mould a bit – into the job’.^{vi}

Matthew was recruited from a school in Forest Gate in the Newham local authority area. His A-levels were in Business Studies, Psychology and Maths (and an AS-level in Chemistry). He was keen on the ‘apprenticeship idea’ because his sister had undertaken a similar three-year programme in Engineering with the Ford Motor Company. He saw that the Commerzbank programme was run on similar lines although in his view his school as a whole did not devote much time and attention to such options. The clarity of his aspiration is summed up in his statement: ‘I wanted a nice respectable job in the City and qualifications behind it’.

With A-levels in Economics, Maths and Computing (plus three AS-levels) and three months’ work experience after school, Nathan didn’t really know what he wanted to do. He was unclear where to focus his energies but was prepared to ‘try and work [his] way to the top’ and wanted to be sure that ‘there was a qualification at the end – otherwise what’s the point?’

The principle of recruiting high achievers from disadvantaged schools seems to pay dividends for company and college alike. Often first-generation higher education students, these are individuals who do not want the full-time university option even though they have the grades and the potential to take that route. Sometimes it is families that are opposed to the idea for financial reasons or it is the learners themselves who have an aversion to accruing debt.

Bank and college interviewees referred to the students as individuals who excel at every turn – academically and professionally – and to a general learner/trainee profile which is exactly fit-for-purpose: ‘we like the students we get’; ‘we’ve never had a dud’; ‘they’ve always exceeded our

expectations'. They were described as 'usually very bright', as 'mature beyond their years', as 'well-balanced without ego or personality issues', as 'clever in a nice sort of a way', as 'enthusiastic about learning', as 'charming', as 'modest even a bit shy', as giving 'no impression of cynicism', 'nice ordinary students, not pretentious', as 'respecting the investment made in them' and as 'making the best of the chance they have'. There are practices at work in this recruitment process that

Supportive recruitment of high achievers from inner-city schools plus rigorous selection to ensure best possible trainees for the company.

contribute to weakening the conventional correlation between social class and educational achievement.

Recruits are appointed to the bank on a salaried traineeship basis for two years. This 'package', modelled on the German dual system, means that the trainees are employees first and foremost, and as such they enjoy all the 'normal' bank conditions such as holidays. They spend three days a month at the college (a Thursday, Friday and Saturday) and are released for an additional one-week block each semester. This amounts to 40 college days per year in the first two years.

The bank is increasingly convinced that this way of developing staff represents a very good return on their investment. First, because the trainee salary (especially for the first two years) is lower than the average starting salary; secondly, because of the calibre of the trainees; and thirdly, because the traineeship is organised so that individuals do not form part of the head-count of any of the departments they work in during the training period. This makes them attractive to heads of departments.

The college designs and teaches an honours degree top-up which is university located and validated^{vii}. At the end of their second year, the trainees go onto the official organisational headcount in a permanent position from where they do their final degree conversion in their own

time but at the bank's cost. The reason for physically locating the degree in a university is to enable the students to take advantage of the campus facilities such as the library.

This arrangement is seen as a better investment than company graduate recruitment because, as one of the bank managers reported, 'vocational' students are at the very beginning of a career, are more versatile, more enthusiastic and more amenable to imbibing the company mindset. It also represents better value-for-money than the company internship programmes that take on sandwich degree students. The argument here is that a sandwich year is too short a time for the company to reap optimal benefits from placements and there is no guarantee that the students will return to the company after completing their degrees. Headhunting is also an expensive way to bring new people into the company: 'so why not grow our own via traineeships?'

Although the trainees are prepared for a career within the bank's strong internal labour market, the company is quite happy if recruits only remain employed for 3-4 years after the honours degree because, as one manager commented: 'retention forever is not the main aim of the scheme'. This is partly because of the fast-moving nature of the banking industry, especially its investment side, and partly because Commerzbank's main operations are in Frankfurt not London^{viii}. That said, according to one bank employee, five out of eight trainees have stayed with the bank beyond the requisite 3-4 years.

The trainee programme is appreciated as a value-for-money investment with higher yields for the company than other recruitment and staffing strategies.

The college-based side of vocational education and training programmes in the German dual system is frequently guided by defined curriculum content (although this varies between enterprise settings). There is also a concern that training goes beyond the scope and immediate needs

of individual jobs and companies in order to provide a broad basis for a career in the sector. Although HNDs have to some extent (although by no means completely, as we shall see) been displaced by the UK government's emphasis on Foundation degrees (in England at least), they are familiar to German companies and are still perceived as a 'credible vocational alternative to a university degree'. The HND thus suits the purposes of German companies operating in the UK by acting as a proxy for the nationally standardised curricula they are used to.

The earlier school leaving age in the UK (18 compared to 19), and three rather than six year degrees, meant that the UK system is seen as faster and more flexible. Recruits can complete their training much more quickly than equivalent trainees in Germany. Progression from an HND to the final year of an honours degree has long been a possibility in the UK, although usually negotiated on a case-by-case basis rather than via formalised arrangements for whole cohorts of students. This has enabled the ECBM to develop an honours degree programme (for graduates from the HND and the CMS) that is validated by a UK university.

In this way, the Commerzbank three-year 'package' combines the 'best of both systems'. It offers a high-level banking apprenticeship based on the traditional dual system *and* the possibility of acquiring honours degree status on an accelerated basis. So, as well as being a 'credible vocational *alternative* to a university degree' the HND also becomes an access route *into* a university degree for both German and British employees.

'Commerzbank values the HND because of the route to the degree at the end of it – it's a fast-track which the students do very well on – for them, that's the big issue' (director, ECBM).

Putting knowledge to work in the programme design environment (content recontextualisation)

The college-based side of the trainee programme comprises an Edexcel-accredited BTEC HND in Business (Finance). HNDs have been part of the higher education landscape since 1974. From the perspective of Edexcel (2004, 35) they are flexible programmes designed to address educational and workplace goals:

BTEC Higher Nationals are designed to provide a specialist vocational programme, linked to professional body requirements and National Occupational Standards where appropriate, with a strong work emphasis. The qualifications provide a thorough grounding in the key concepts and practical skills required in their sector and their national recognition by employers allows progression directly into employment. BTEC Higher Nationals offer a strong emphasis on practical skills development alongside the development of requisite knowledge and understanding in their sector. Learners are attracted to this strong vocational programme of study that meets their individual progression needs whether this is into employment or to further study on degree or professional courses.

In effect, then, the programme is pre-designed. Edexcel (2004, 438) defines the Finance ‘pathway’ as follows:

This pathway will give learners an appreciation of financial planning and constraints. It will cover the collection and analysis of cost data for management purposes, budgetary planning and control, the preparation of financial statements for different types of business and legal and regulatory provisions, the accounting and management control systems of a business and an evaluation of their effectiveness, and the taxation of individuals and limited companies.

Edexcel retains traditional examination board systems for qualification design. After external consultation and internal approval, a ‘product development’ operational team is established which includes ‘subject

leaders' who contract a range of 'writers' to produce module drafts. Writers are drawn from the specialist educational community, for example, existing internal examiners and/or key people from colleges. Relatively long timelines allow for a three-stage internal scrutiny and auditing process prior to submission of the qualification to the QCA for accreditation on the QCF^x.

Edexcel is currently revising its BTEC Higher Nationals (HNs): this offers an insight into the type of external consultation and internal approval processes that precede product (re) development. Questionnaires, visits and focus groups have been used to obtain views and feedback from colleges, universities, employers and other stakeholders. The consultation lasted about a year culminating in a report to the Edexcel Strategy Group in late 2007. On the basis of their continuing popularity in the field, it was agreed to retain the HNs albeit with a few changes. The key change is in the level of the award: HNDs, HNCs and a new Higher National Award (HNA) will all become Level 5 qualifications (they are currently Level 4), but of different sizes (240, 120 and 60 credits respectively). To reflect this change in level, 60% of each award will be at Edexcel's higher level (H2^x), an increase from the current 50%. The new products will be launched in 2009/2010.

A college programme that draws on an established qualification specification developed within the specialist educational community on the basis of consultation with stakeholders.

The BTEC HND in Business (Finance) comprises 62 units in total: eight of these are core and compulsory (Marketing, Managing Financial Resources and Decisions, Organisations and Behaviour, Common Law 1, Business Environment, Business Decision Making, Business Strategy, and, Research Project) four are specialist and compulsory, and the remaining 50 are specialist and optional (of which four must be taken).

The large number and wide range of optional modules create almost

Core & Compulsory Units

- Marketing
- Managing Financial Resources & Decisions
- Organisations & Behaviour
- Common Law
- Business Environment
- Business Decision Making
- Business Strategy
- Research Project

Specialist & Compulsory Units

- Management Accounting
- Financial Reporting
- Financial Systems & Auditing
- Taxation

Specialist & Optional Units

- Managing Professional Development
- Managing Activities to Achieve Results
- Human Resources Management
- Managing Human Resources

Figure 1: The HND Programme at ECBM

innumerable customisation possibilities which the college uses to good effect. The college has an Advisory Board, reputed to be 'in touch with what the City needs', which makes recommendations regarding the relevance of modules in the light of the business environment. Taking account of this, the college puts forward a customised programme for the bank's approval, including in this case, the specialist, optional Investment module.

Final content decision making appears to be a reciprocal and collegial process between company and college. As the college director put it: 'they say "yes, we like that or no we don't"' but "they tend to take our advice as professional educators'. The college will mount additional (unaccredited) modules if the company requires them but not at the expense of the HND specification: 'we customise to their needs as much as we can but we *do* offer a standard national qualification because that's what they want'. Thereafter pragmatic decisions are jointly made regarding the amount of time to be spent in the college and the best way of organising 'block release'. Given the small numbers of students on any one programme, no additional choices or individualised selections are possible: 'Employers have options, students don't'; 'because we are small we need to keep the cohorts together'. In these ways, the programme combines the benefits of national and bespoke specifications. Because of its bespoke nature and because it is not sold on the open market, it is referred to as the 'corporate HND'.

A customised national programme to suit company needs created from a wide range of optional modules grafted onto a common core.

In terms of content, the modules consist of a mix of general business functions and operations and disciplinary and subject knowledge. For example, the core and compulsory module 'Managing Financial Resources and Decisions' (H1) foregrounds 'how to do things' and 'techniques'. Although at a considerable remove some elements of disciplinary knowledge are used to inform the module e.g. students need

to understand the legal implications of financial sources (Law). Another example is the specialist and compulsory module 'Financial Systems and Auditing' (H2), which is primarily concerned with 'the process of audit reporting', but nevertheless draws on some disciplinary knowledge, for example, in references to the 'regulatory environment' (from Law).

Modules that are closer to the disciplines of Law and Economics include the core and compulsory module 'Business Environment' (H1). Here, learners are expected to study different types of economic systems, along with basic business theory such as 'market types'. The reading list includes textbooks with titles like 'Business Economics', 'Principles of Economics'. Another example is the Common Law 1 module (H1) which introduces both the inductive side of Law i.e. the Law of Tort, the Law of Contract and its application-oriented side in terms of business contracts for example.

The content of the majority of the modules reflects general business functions and operations (with theory rear-grounded to varying degrees); modules are pitched at a sector-wide level even though they are designed to be applicable to particular organisations and jobs.

The HND structure customised in this way, suits Commerzbank's requirements because the qualification is applicable Europe-wide and its syllabus also chimes with the breadth that is so valued in the German dual system where the emphasis is on producing a 'rounded employee'. The college director pointed out how the company and the college require attention to a broader knowledge base than just 'how to push buttons'; 'we're aiming for a bigger understanding of Economics and Finance for their growth in the company in the long term'. Breadth is also valued in terms of the need for students to understand the wider context of the company they are working for i.e. contextual breadth.

The HND specification satisfies company and college needs for a broad-based liberal vocational programme that resembles the German dual system.

In addition, it is possible for learners to convert from an HND into an appropriate honours degree via the negotiation of exemptions. This option has been strengthened in recent years: 'A key progression path for BTEC Higher National Certificate and Diploma learners is to the second or third year of a degree or honours degree programme, depending on the match of the BTEC Higher National units to the degree programme in question' (Edexcel 2004, 35).

From the perspective of the programme design environment, the curriculum balance between general business functions/operations and disciplinary and subject knowledge appears to support the capacity of HNDs to articulate with honours degrees.

Putting knowledge to work in the teaching and facilitating environment (pedagogic recontextualisation)

College lecturers are mainly highly qualified and experienced in the banking industry having worked their way to senior positions starting from apprenticeships or study at a business school. The move to teaching tended to represent a second career, occasionally preceded by disillusionment with the nature of banking: as one lecturer put it, 'in the bank I was taking, taking, taking – teaching is about giving – it's a nicer way of life'. One of the college lecturers used to be Head of Financial Institutions at Commerzbank where he had contact with several cohorts of trainees from the company perspective (he moved over to the college on retirement). College directors have conventional academic profiles plus in the case of the overall director, nearly two decades as an educationist.

As we have seen, the programme is pre-designed – initially by Edexcel and subsequently by the company and college's selection of optional modules. Although Edexcel distinguishes between core compulsory, specialised compulsory and optional modules, it does not prescribe the order in which they should be sequenced into a programme. This responsibility falls to the college team. The potential for flexible sequencing was well-captured by the director's metaphor: 'the modules can *pin around* each other'. Sequencing decisions are taken on *pragmatic* and *educational* criteria. The former relate to timetabling complexities and teacher expertise and availability. Although as one lecturer put it, 'we all have our own set of skills really' a fair amount of versatility was also noted, as in: 'there's nothing on the HND that I can't teach apart from the HRM module'. Educational criteria refer to a principle-in-use whereby modules that are considered to be more general in their content precede those that are more particular and applied. As the college director put it: 'it's nice to have generalist modules first but not essential' and as the deputy-director reported: 'you start with the modules that contain the knowledge that they need to understand the others'.

A module sequencing principle based as far as practicable on teaching general, enabling knowledge first.

The specification for each Edexcel module is very detailed, consisting of a description of each unit, a summary of its learning outcomes, detail of its indicative content, assessment criteria in relation to each outcome with pass-level grade descriptors (and generic grade descriptors for merit and distinction), guidance on 'delivery' and assessment methods and recommended texts and support materials. A key benefit of this is that teachers begin with the accumulated wisdom of all those who have been involved in the design of the qualification over the years.

However, for the more experienced and/or experimental teacher, this level of specification can be restrictive, for example, one college lecturer with a long career in banking and in teaching commented on the frustrations associated with 'low levels of flexibility', an emphasis on 'assessment rather than teaching', and the requirement to 'drill people for a series of outcomes'. For him, it was 'all the wrong way around'. He likened this type of 'paint by numbers' approach to 'teaching people to drive a car on a sunny day on a dry straight road, whereas before, when we had more academic freedom, I used to throw in snow, fog and dark nights – you can still do that providing one attends to the other areas and one is always concerned about that – the reality is that you focus on what is being assessed'.

Detailed module stipulations standardise practice but run the risk of restricting the activities of the more experienced and/or experimental teacher.

Relationships between different forms of knowledge revolve, as far as Edexcel is concerned, around the *practical application* of relevant knowledge and skills in the workplace. This application principle is embedded in assessment specifications whereby 'students demonstrate that they can achieve the stated learning outcomes in the programme

by undertaking a range of practical and varied assessment tasks'. Assessment instruments are constructed by the accredited centres which are encouraged to make maximum use of students' work-related practical experience or, failing that, case studies and simulations. The same methods are recommended for teaching and learning purposes, as in 'understanding will be developed via exposure to a variety of case studies' and/or where possible by 'the analysis of a variety of real organisations' (Edexcel 2004, 64).

Relationships between forms of knowledge are forged in a variety of ways in the *actual* teaching and facilitating environment and these do not always conform precisely to what is espoused by Edexcel. In this college, the teachers are clear that their responsibility is to teach. As the deputy director put it: 'the college is concerned *to teach* the theoretical background'; 'my job is to be a teacher as such'; '80% of my job is giving them theoretical knowledge which they don't know'; 'they need to know the theory not the application'. One of the college lecturers echoed the same sentiment: 'we teach the theoretical strategies here'.

It was acknowledged that this is sometimes a demanding pedagogic challenge in a programme that is so geared to practice. One interviewee spoke of 'pulling the students back from application' to focus on working with theory, by for example, 'comparing different viewpoints in a series of short texts'. Teachers were equally clear that the specificity of situated knowledge in the workplace was *not* their main concern: 'I'm not the line manager'; 'I don't want to teach them to work where they're working now'; 'I don't believe in training people to do the jobs in the place where they're at'.

In practice, this means that in the classroom teachers tend to focus their attention at a more generalised level than the everyday exigencies of Commerzbank. One lecturer referred to this as 'a German thing – the integration of theory into practice but *at a level wider than their job*'. Teachers try to make pedagogic linkages between theory and company-wide functions and/or generic organisational issues – a sort of sector-level

knowledge. This was variously referred to as: 'looking at skills people can take anywhere with them' or 'not losing sight of other things' or 'I'm looking at *points of access* so wherever they go they can act'.

A clear example of this was given by one of the Finance lecturers who interpreted sector-level knowledge in psychological terms. For him, generality was to be found in helping students to understand 'what's going on in the mind of the person who controls the budget?' His aim is to assist the learners to grasp, at the level of principle, the 'general thinking of the finance person – *why* funds are rationed' - because this more abstract knowledge ('puts them in touch with areas they may not see') and is potentially more transferable across contexts: 'it helps them to reconcile where they're going with where they've been' so 'they'll know how to communicate in whatever company they're in'.

A pedagogic concern with working between theory and a 'level wider than the job'.

There are, however, some teaching and learning strategies in use to increase linkage to the specificity of workplace knowledge. Several references were made to 'structured coursework', case studies and small-group discussions in this regard. For example: 'I give a case study and ask them to compare it with their organisation' and/or 'they use that information in group discussions and relate it to your companies' and/or 'interview your partner about this'. Instances were also cited of teachers who, for illustrative purposes, 'would bring in particular students' experiences'. And occasionally learners make short presentations about their work. In some modules linkage to workplace knowledge appears to happen more frequently than in others, for example, 'with the HRM module, we'd talk about what we knew about HR in our own companies – it came in naturally'.

One lecturer had an idiosyncratic but effective way of making connections across forms of knowledge. Describing his approach to teaching 'company

law' on one of the Common Law modules, the lecturer observes that he lays out some key theoretical propositions at the outset: 'I usually bring in basics first – they've got to work within a framework – a theoretical framework – the rules and how they're supposed to be applied – before creating a visceral contextualisation and representation of the movements, connections and interplays between forms of knowledge:

I try and paint a picture - I want the students to be there in that company, feeling the anger of the dispute with the other person, feeling what its like not to have slept that night because of worrying about the court case - I tell them to close their eyes and I paint the room for them – over there, the filing cabinet, over there a window that needs cleaning – I create the environment. And the context: should the person be taking action? What are people in the town saying about you? What appeared in the local newspaper? Are you winning a battle but losing a war? The only way is to live it and get a sense of the reality within it...

Pedagogic strategies are in use to relate theory and sector-level knowledge to situated knowledge and company contexts.

Although teachers' pedagogic strategies go somewhat towards forging relationships between forms of knowledge, the main responsibility for this does tend to fall to the learners. As one lecturer put it: 'they make the links – not me – that's their job not mine'. This happens most visibly in the assignments. As the college director expressed it: 'The link between college-based and work-based parts of the programme comes through in the assessments which are all work-based'. Learners bore this out by commenting that 'all of the assignments link to work' and 'the questions that they set - you have to relate it to what you are doing at work'. Indeed, what members of staff refer to as '*the contextualisation of the assessment*' is one of the key spaces in the programme where their professional judgement comes into play: 'It's the contextualisation of the assessment that is up to our judgement and that is what we try and do in our assessment handbooks' (director, ECBM).

Great care has been taken over the construction of assignments so that they are formative and developmental and try to link theory and practice. Each assignment is introduced in a way that explains its rationale and aims and situates it within the broad context of business life. Each task is aligned with particular module outcomes and pass-level assessment criteria. The generic grade descriptors for merit and distinction are contextualised to each outcome.

Assignments usually have a theoretical and/or general dimension (as in: '*explain* the link between motivational theory and reward' or 'compare and contrast different organisational structures and culture' or 'describe the nature of groups and group behaviour within organisations' for example) *plus* a requirement that learners use the bank as 'a living case study' (deputy director, ECBM). This involves them researching within their organisation: 'you get out and interview working colleagues'; 'you draw the knowledge out of them'.

College members of staff see this approach as extending as well as contextualising learning, because the tasks are not tied to the department that a trainee might be placed in at a particular time. Therefore, although attention remains focused on company-wide functions i.e. at 'a level wider than their job', specific company practices are also drawn in. For example, one learner referred to researching leadership strategies in her department and to explaining and evaluating those strategies in relation to the theory (i.e. using theory to understand and evaluate practice). Guidance is provided so that learners know exactly what is expected of them at this level of contextualisation, for example: 'based on your reading and application of theory...'; 'you are expected to use theory and link this to examples you can refer to from your own experience in [company] in order to illustrate the theory'.

Assignments are either 'work-based' (WBA) or 'time-constrained', open-book, supervised events (TCA). The work-based assignments usually require students to produce a report for their company, or for a particular department or manager within their company. Although this requirement

forms part of the contextualisation process, the reports are not always forwarded to the (notional) recipient. However, occasions were cited where Commerzbank managers were actively involved in assessment (although not in the actual grading), by for example, conducting vivas with the learners. Time-constrained assignments tend to take the form of question and answer papers. These provide an opportunity for students to practise academic skills such as referencing. Guidance is given in this regard, for example: 'please ensure that you make clear referencing to theory (and sources)' and learners have an opportunity to self-evaluate their assignments against academic criteria such as 'logical development', 'use of sources', 'references' and 'insight and originality'. Although academic essays are not required until the top-up year, students are encouraged to develop academic habits rather than 'relying on wikipedia'.

Assessment tasks contain a contextual dimension and students are supported in bringing forms of knowledge into relation with each other. See Guidance Note: contextualised assessment

In general terms, the college consolidates the above pedagogic approaches by creating informal relations with learners. This is possible partly because of its (relatively small) size and its position in the private sector. Learners made references to the availability and helpfulness of staff, and indeed several of them continue to rely on the college as a support and resource after graduation: 'they come back to college to chat'; 'it's like a family – I pop down to college now and then - we're all on first name terms – we [the students] have very good relationships with the college, because it's small you get to know more about them personally'.

This informality combines with a relatively formal approach to teaching, a combination that leads to the college being viewed as a very special place. As one lecturer put it: 'It's a very rare building this – there's something about this place, where the principles of education are in place and are followed – the learner comes first – doing things the right way – remembering what we're actually here for'. The richness of the

environment extends to and includes college-company relations and company-trainee relations. The latter are of necessity more formal, because the bank is the employer and therefore the arbitrator of conduct and discipline.

Students benefit from two synergistic cultures: the college appears to blend formality of teaching with an informal culture; the bank, as employer, holds overall responsibility for discipline and conduct.

Putting knowledge to work in the workplace environment (workplace recontextualisation)

The trainee programme is clearly structured into organisational life. First, the programme has a champion who is director of the Corporate Banking Department: as he said, 'the thing needs a champion – *me!*' All participants were aware who this champion was and conscious of his overall responsibility for and commitment to a programme that works as a company investment: 'He puts in a lot of time and he reaps the benefits'. The buck clearly stops with him: in his own words, 'I control the programme'. It is noteworthy that the champion is a mainstream company manager *not* a human resource specialist: this seems to raise the status of the trainee programme.

The trainee programme is 'owned' by a visible and senior person in the company.

Secondly, an experienced member of the bank staff has day-to-day responsibility for 'looking after the trainees'. Originally undertaken on an informal basis out of interest, the role has recently been formalised: 'now it's in my job spec so I *have* to make the time'. Called 'trainee supervision', the role resembles that of the German 'meister' (an experienced employee who knows 'what the students are in work to learn' (the workplace curriculum) and who acts as mentor in that regard, who does not always have detailed knowledge about the college-based parts of a programme, and who is not a line manager.

The person occupying this role in Commerzbank has been with the company for 14 years during which time he has worked in various departments and is now in a management position with responsibility for three sections of the bank. Trainee supervision is thus only *part* of his job and like the programme 'champion' (with whom he works closely), he is not a human resource specialist. Prior to joining Commerzbank, on leaving school, he spent 15 years on the international side of Lloyds

Bank where he worked for 2-3 years in each of a range of departments, achieving, as he put it: 'a general overview of international banking'. He also held short appointments with Fidelity Investments and the Bank of America. What makes this role work so well is his enthusiasm and commitment ('I like the contact with people') and his direct linkage with the person in overall control of the programme.

There are various components to his supervisory role. The most 'official' component is the provision of pastoral support to trainees. He sorts out their holidays and is the first point of contact in terms of sickness or in cases of problems with line managers. In this way he acts as a trouble shooter at the interface with the various departments in which trainees are placed. He argues that this is important - particularly because the trainees are young: 'At 18, they don't always know how to relate to people - they're not used to working and banking'. Because of his commitment and reputation as a 'deliverer', he extends the official component of his role to include more general appraisal and supervision of the trainees including monitoring their job rotation and the quality of the work experiences they are receiving (see below). Although not formally involved in the college programme, a further component of his role is feedback and liaison with the college (and The Brokerage) regarding trainee progress in the employment context.

An intermediary support and liaison person in the company.

Thirdly, the integration of the programme into company life involves maintaining an optimal level of communication with the college. The division of labour is clear: '[the director] manages the college side - [the 'owner'] and I [the trainee supervisor] manage the bank side'. As the college director put it: 'I don't need to know everything that happens there and vice versa'. Rather, lines of communication are open and informal, activated as and when necessary. From the college director's perspective: 'the company knows what's happening here more than we know what's happening there'. There was a sense of the two sides running parallel to

each other, but not separately. College members of staff acknowledged that this level of employer engagement and interest is rare: 'very good employer support - employers work very hard - in previous colleges I've had employers who were not interested in what the students were doing but that's not the case here'. The staff acknowledged the importance of ongoing liaison and exchange of opinions and views: 'We talk about the learners all through the year on email' (director, ECBM).

When particular problems arise the communication channels are clear and relationships established. An example was cited of someone who was not faring well with his college work, although his performance in the bank was not in question. Because of the integrated nature of the trainee programme, there was no question about the bank terminating that person's contract. As the trainee supervisor put it: 'we have to think about appearances – it has to be a joint thing – we can't let other learners see someone not getting on at college'.

Strong yet flexible and informal company-college communication premised on a shared interest in student progress.

Fourthly, there is job rotation. This is jointly structured by the programme 'owner' and the trainee supervisor. The main purpose of job rotation is 'exposure' - to ensure that trainees 'gain a view of the whole company' and a chance to 'get an idea of what they want to do longer term'. Exposure is also important in relation to trainees' college work: 'The more exposure you get the more you can relate your experiences to coursework'. In general, trainees are welcome additions to any company department: 'they are definitely seen as assets' (trainee supervisor). In the first two years of the programme, trainees rotate between four and eight times, the general consensus being that it takes approximately three months for a trainee (or for that matter any new employee) to learn the systems in a department. Occasionally, rotation might involve a stint in the bank's headquarters in Frankfurt. Or a serendipitous situation might emerge where an incumbent takes sick leave and the trainee takes over

with supervision but ‘as an equal in the team – after 1-2 months!’ In the honours year(s), trainees tend to have longer placements.

A flexible approach to the structuring of placements.

The management of the work placement is the responsibility of the head of the department or section concerned (who may or may not delegate to a named manager) its character depends on the nature of the department, workloads and the individual histories and profiles of the key individuals. There is of necessity a great variety of strategies and little or no prescription.

For example, in terms of induction into the placement, the trainee supervisor reported how (when he was a line manager) he would ensure that trainees became familiar with job documentation: ‘I have written procedures for all the jobs, I ask them to read through the procedures when they start’. Thereafter, trainees experience every job in the section and at the end he refers them back to the procedures and asks for their suggestions on how to improve on them. Another section head structures a preparatory period of observation into placements: he has his trainees ‘sit with people and learn the routines before taking on any responsibilities as such’. In some contexts particular learning objectives for the work placement are established. One section head seeks to engender an ‘asking culture’ in his department, by for example, turning weekly team meetings into learning opportunities and ‘instructing the trainees to use the meetings to ask for clarification if anyone was saying something they didn’t understand’.

Some sections are inevitably able to offer richer placement experiences than others, particularly if they have a central or cross-organisational remit. For example, the Accounts section has a strong ‘internal network’ across the bank, as a consequence, anyone working in Accounts tends to ‘gain more exposure to different parts of the bank’ than is the case in many other departments. Equally although communication with customers

and with senior management is an important feature of the training programme, not all departments are able to provide the same opportunity to develop this skill.

In no event is a trainee permitted to leave a section without a 'good track record' (director, Commerzbank). Although workplace learning is not assessed as such, trainees are usually required to produce reports and these are tied into the bank's annual assessment/appraisal system in which trainees are included. The trainee supervisor receives copies of all of the (appraisal) reports and can follow up on any areas of difficulty as he sees fit.

A flexible approach to the organisation of placements but a clear reporting and monitoring system.

The company prides itself on the general level of support trainees receive for their college work whilst in the workplace: as in, 'small numbers of learners means that we can support them and be on first name terms'; 'line managers are supportive' (director, Commerzbank). Although there is a culture of support, there are occasional exceptions. As a college director reported: 'from a *cultural* point of view support for learners is there although not always from an *individual* point of view' or, as one student put it: 'you might get the odd supervisor who isn't supportive'. A culture of support is borne out by trainees' reports of easy access to company resources: 'we can email people in France to help with our research on bank strategy if we can't find it ourselves' and by a bank director's expression of personal interest: 'I ask the learners what college project they are doing and talk to them about it'.

Supervisor support for trainees' college work takes various forms: 'There are different ways of operating in different departments in terms of support' (director, ECBM). One way is to ensure that the trainees have study time built into their work schedules, for example: 'I let them stop work at 3 pm and study for their exams if needed – and they can stay on

after 5 pm to study’.

Alternatively, or additionally, some supervisors are forthcoming in providing specific and focused information and guidance to the trainees. This largely depends on their backgrounds and interests. One student described his supervisor as ‘pro-training’: ‘My supervisor has been through a degree so he’s got lots of books on Law – he’s given me lots of background’. Other supervisors adopt a clear pedagogic role in relation to trainees’ college assignments. They might for example, ‘look through trainees’ assignments’ once completed, or they might support learners in the design and the undertaking of an assignment. An example was given of an assignment requiring the trainee to think about a new business venture and write a plan for it..

The issue of reporting also helps to consolidate the workplace recontextualisation process. In some instances this is entirely internal to the company. In other instances it is linked to aspects of the college curriculum. Examples of such linkage include trainees using their company reports in their college assignments. Conversely, college assignments may contribute to trainees’ company reports and appraisal. Although the college encourages this kind of cross-over it is essentially left to the discretion of the trainee: ‘Learners do work-based reports for their company – they’re encouraged to integrate what they do so they don’t duplicate – they can use their work reports in their college assignments if/ as relevant and vice versa – it’s up to them and their self-management’ (director, ECBM).

A strong enabling framework facilitates the emergence of a wide range of flexible strategies to link work experience to college assignments. In some instances these are more expressly and proactively pedagogic than in others.

Although attempts are made to directly align job rotation with college modules and assignments in terms of timing (‘we try and tie their college

work into their work' [company director]), this is seldom practical. If the two coincide it is seen as a happy coincidence: as one student said, 'I was lucky to be working in that department at the time'. Any negative outcomes of there being few parallel experiences are militated against by the culture in the company. One student referred to retrospective possibilities: 'even if I had left the department I could have gone back and asked for the data'. Another referred to prospective possibilities: 'my work is not that related to my college work at the moment, but what I'm learning now will be useful when I go into Equities and Derivatives downstairs'; 'whatever we learn now we can relate to our jobs because we're going to be moving around departments'.

It is unrealistic and unnecessary to forge complete synergy between job rotation and college modules.

Because the trainee programme represents a better return on investment for the company than other recruitment strategies, it has been decided to try and increase trainee numbers to 11 in the academic year commencing in 2008. Larger numbers means than current approaches to job rotation cannot be sustained: they are too labour and time intensive. Rather than starting with placements around the company so that trainees gain an overview, the new plan is to offer 18-month placements to clusters of trainees at the beginning of the programme and to rotate them to other departments thereafter (if possible). So, for example, one company department might bid for five trainees. Attempts will be made to minimise some of the experiential losses by building in monthly meetings for all trainees. Although the new approach makes sense in productivity terms, it is recognised that it poses risks to some of the principles of job rotation.

Companies are continually under productivity pressure. It is a challenge for even the most committed company to maintain such a high level of involvement and engagement.

Putting knowledge to work in the learning environment (learner recontextualisation)

Trainees' successful recontextualisation of their college-and work-based knowledge and skill was largely attributed to their hard-working and self-disciplined approach to both sides of the programme. As one of them put it: 'I decided to just work my socks off and see what happened – try and work my way up to the top - I was in a mindset where I wouldn't let anything defeat me – I wouldn't let thoughts about anything being too difficult come into my head'. His particular single-mindedness did not go unnoticed in the company: the trainee supervisor noted that this learner 'had no social life for two years'. Dedication was coupled with a spirit of enquiry. Several trainees referred to themselves as 'asking' when unsure and to both company and college as being receptive: 'I ask a lot of questions – I think the detail is in the specifics'; 'there are lots of opportunities to ask questions because college classes are small'; 'I ask if I need to but go as far as I can alone'; 'I was quiet but now I ask questions'.

Although the trainees change and mature during the programme in their own particular ways: 'they're all different personalities – there's no cloning going on' (college lecturer), there was a general sense of them all emerging as 'quite rounded individuals who communicate well and know how to treat other people and who have an awareness of their own abilities'. Thus, they become very well positioned to act in the banking world. Indeed, they all see themselves with a long-term career ahead of them in the industry. One graduate (cum laude) reported how 'fortunate' he felt having started the programme as a Junior Credit Administrator and having already risen to the level of Senior Credit Administrator.

The programme appears to position trainees extremely well for successful careers in banking.

Two interviewees made very erudite comments regarding their sense of

whether or not module content was 'valuable'. One of them was of the view that all of the modules were 'valuable in their own way' – some were more directly 'useful' than others and some were more 'interesting' than others. In theory these variables could differ independently of each other but in practice no references were made to interesting modules that were not useful. But the converse *was* the case, for example: 'I did Taxation – that didn't interest me – but because I work in a bank I have to know about it – so, it's useful'; 'I liked the Investment module because I was able to learn about different products which I was able to apply directly in the corporate banking area'; 'I liked Accountancy - I like how you can project your business into the future'. The college director concurred that students have never complained about any lack of congruence between the modules and their work.

Modules which related quite directly to work were important
recontextualising devices for the students.

There was a lot of respect for the industry and professional experience of the college lecturers: as one student put it, 'they're very experienced - you learn from the best'. As well as having experience, the lecturers were also appreciated as good teachers, 'able to present information in ways that makes it very easy to understand'.

Concepts well mediated by the lecturers and by their experience.

Learners were clear that *they* were responsible for making the relationship between theory and sector-level knowledge and contextual work process knowledge: as one put it, 'the connection was mostly in my head'. His version of the process was as follows: 'I had to use my own work experience to explain or back up the college theory – to give arguments - for example one piece of coursework was to make the case for and against the Euro – I had to interview people, get different views on the state of markets and apply the theory to that'. Or, as another student

explained: 'The college set the work such as you had to research things with people you work with – the tasks directed us to make links between theory and practice'. He clearly positions the assignments as the key point of articulation between forms of knowledge.

Learners concurred that it is difficult to have much 'direct discussion of work experience in the classroom' because it is not always easy to generalise about the specificity of each company context: 'it's quite difficult to draw connections – everyone has different experiences in different contexts – Siemens, Deutsche Bank etc – there are lots of students with different work experiences in different companies'.

Learners see themselves as largely responsible for making connections between forms of knowledge through their assignments (although supported by the design of the tasks and by relatively easy access to company resources).

Trainees clearly benefit from the range of social practices that job rotation allows them to participate in. These extend beyond formal jobs to the more informal aspects of the workplace community. The latter made trainees feel less separate from the workforce as a whole: 'I might have felt like a trainee but they didn't treat me as one – I'd go for lunch with them and go to meetings'. The converse was also the case, with trainees 'feeling like a trainee' when 'left to answer the phone when everyone else is in a meeting' and 'doing the things that others don't have time to do'.

The challenge for a company is to maximise opportunities for trainees to participate in a meaningful way in the formal and informal aspects of the job or placement.

The company as a whole is committed to and supportive of the trainees. The integrated nature of the support was important i.e. that being supported as a trainee implied being supported as a learner and that it

was generally appropriate to ask for either kind of support as and when needed. Line managers were praised by the trainees for being 'particularly supportive', interested in college work and keen to facilitate access into and across the organisation so that learners could contextualise their coursework and their assignments as required.

A culture of support for trainees in the company that encompasses support for their college work.

Participating in a meaningful way in a 'real' workplace was seen as hugely beneficial to the trainees' development. The investment banking/ City/corporate environment has specific features which mark it out as a particular type of community. It has a temperament characterised by 'confident, forthright people – especially in corporate banking – investment bankers are very direct and straight, not wishy-washy'. These are the people that the trainees 'rub up against' and have to learn to communicate with and relate to as colleagues. At the level of conduct, the requirements are to 'be punctual' and 'dress smartly and have the right attitude'.

The expectation level is high. The bank is looking 'to develop attitudes and abilities that go beyond the here and now'. In such an environment, trainees mature very quickly. As the Commerzbank director commented: 'many 18 year olds are still children - these grow up very quickly over three years'. He was of the view that 'they are far more mature than graduates who haven't been in the workplace'. They also gain in confidence. All parties commented on this. From the college perspective: 'they learn confidence – when I think about one student from last year – she is just beaming confidence – she says she hasn't changed but she has'. Trainees themselves commented: 'a lot of my confidence has come from working at such a young age in an organisation like this'; 'the bank experience prepared me socially and gave me confidence'. Again, the college-company combination worked in a synergistic way: 'the students are in a real-work atmosphere and *work changes people* – makes them better students too'. Being part of a corporate environment at such a

young age is extremely challenging. There was a sense in which the college side was more relaxed – a place ‘where they can be’ students and young people/children again – after all they’re only 19’.

Careful attention to support and job rotation means that the trainees all benefit from the same level of opportunity in the company.

As mentioned, at the end of their second year, the trainees go onto the official organisational headcount in a permanent position from where they do their final degree conversion in their own time but at the bank’s cost. It is a six-module programme; four of the modules comprise coursework and an examination; the final two modules are connected and assessed together (reported as being the equivalent of a dissertation). The customised nature of the honours means that there is a smooth transition for students and some cross-over in terms of content: ‘When they get to university, there are many things they study that they will have seen before’ (director, ECBM). Learners concurred: ‘there wasn’t much of a jump – I had to learn Harvard referencing that’s all’. Consequently, all learners progressed with ease and succeeded well. Again expectations were high. The college director stated that ‘we expect 10% of our students to get a first and they do: ‘last year one of the learners got a first-class honours degree – that’s good considering the demands of a full-time job as well’. Some graduates then progress to masters degrees.

The programme as a whole succeeds in facing both ways i.e. towards work/career and towards academia – indeed the latter is seen as a prerequisite for the former.

Commentary on the modes of recontextualisation

One challenge of designing and implementing this programme is to develop the synergies between college and company workplace cultures in ways that allow the links in the complex chain of recontextualisation – content, pedagogy, learner and workplace – to work backwards and forwards effectively across college and company.

In the case of Commerzbank and the ECBM, what is distinctive about the partnership is the way in which principles shared by companies working in the German cultural tradition ('it is our duty to train') have been recontextualised in UK culture. There is strong attachment to the principle and practice of partnership, with key players culturally as well as organisationally engaged in the Trainee Programme. The programme is also aiming to 'fast track' trainees. Workplace supervisors are expected to support this and they take this seriously.

The process of determining which content is recontextualised from its academic origins starts with the design of the HND curriculum by EdExcel. The latter is the product of (multi) disciplinary knowledge selectively restructured with regard to the organisational demands of the financial services sector. Those involved in content recontextualisation are drawn from the professional educational community as part of the examination board's standard design processes. At this level there is consultation with employers but no involvement in the actual design process; the approach used has been developed and refined through the long history of HNDs and BTEC.

The design logic is (1) that the disciplinary knowledge that is offered to learners is foundational and therefore applicable to many aspects of practice, and (2) that this and other forms of knowledge, for example, work process or sector-specific procedural knowledge have to be 'put to work' within the programme.

The curriculum challenge therefore is to combine types of knowledge

characterised by different ‘discourses’ (Bernstein 2000) into a coherent programme. The college tackles this challenge by using general sector-wide business functions/operations, often presented in the form of case studies, to make links between both the disciplinary concepts drawn from Law or Economics and culturally embedded company knowledge, for example, the practices of actual banking departments.

In forging the chain of recontextualisation from curriculum to pedagogy, lecturers use a mix of traditional approaches such as formal teaching of the rather abstract principles that underlie business economics and more experiential approaches. These consist of the creation of scenarios for learners to test out both their understanding of principles by identifying the extent to which they are embedded in sector- and company-specific practices; the use of role play, for example, to encourage learners to imagine that they are accountants who have to justify turning down a request for funding; and opportunities to undertake placements in different parts of the company or to research local examples of more general principles.

The intention is to use this mix of pedagogic approaches to assist learners to appreciate why they need to be familiar with theoretical, procedural and sector-based knowledge, and also to grasp how the generalisations and practical principles that flow from such knowledge play out in different ways in professional action, work processes and the organisation of work in different parts of the company (Eraut 1994; Barnett 2006; Boreham *et al* 2002).

Lecturers develop assignment specifications to support the learners to move between the forms of knowledge. For example, lecturers may make it an explicit requirement that the students use theory to illuminate and evaluate practice, or draw out theoretical connections in practice-based examples. This approach to ‘gradual release’ takes the form of practising moving between forms of knowledge, with the aim of eventually becoming adept at using different forms of knowledge as resources to engage more deeply with both practice and theory.

Another strategy that supports pedagogic recontextualisation is to encourage company staff to 'cross-over' by teaching in the college i.e. experienced bankers moving into teaching as second career. There has, up-to-now, been less cross-over of college staff into the bank probably because workplace recontextualisation has been seen as the learners' role. Certainly, visits to the company or work shadowing experienced professionals would help college staff to update their expert knowledge of the sector as well as to keep a breast of about what is happening in the company at the level of specific work practices.

Within the workplace, the combination of staff commitment and a learning curriculum (Lave and Wenger 1991) support learners to recontextualise their knowledge: work experience across different departments enables learners to relate theory to practice in different settings while staff commitment to answering learners' questions and setting up visits to other parts of the company furthers their understanding and the development of their confidence. The net effect of these workplace pedagogic conditions is that learners are actively encouraged and supported to access/research company knowledge and to incorporate this knowledge, wherever possible, into discussions about different manifestations of sector practice in the college. The shared college and company aspiration is that such 'knowledge exchanges' will encourage learners to think beyond their immediate practice.

The above pedagogic processes in the college and workplace environment positions learners to progress professionally (i.e. to gain promotion) and academically (i.e. convert the HND into an honours degree).

Organisational arrangements in the bank play a major part in facilitating the workplace recontextualisation of knowledge into the workplace. The designation of a visible and high-level person reflects and reinforces the culture of commitment to supporting workplace recontextualisation at all levels and in all departments within the company. These arrangements go some way to facilitating vertical and horizontal communication within

the company and thus providing the channels to resolve any problem that may arise.

Support from mentors, in conjunction with carefully planned job rotation, ensure that there are many 'affordances' or 'invitational qualities' for people to learn (Billett 2004). These include experiences of cross-company functions (e.g. accounts) and planned off-the-job time studying for module assessments. Given the inevitable variation that can occur with job rotation, the most difficult challenge is to monitor the rotation to ensure that learners have ample opportunities to participate in challenging (i.e. 'expansive') and more routinised (i.e. 'restrictive') forms of work practice (Fuller and Unwin 2004).

Central to achieving this goal is the formulation of learning aims that go beyond simple 'exposure' to work practice and that specify evidence of 'development' of practice. This presupposes clear guidelines to induct learners effectively into each placement, and designing the opportunities that are offered to them while they are engaged in the job rotation exercise so that learners have experience of undertaking routinised and habitualised forms of work as well as more unpredictable forms of work, often in relation to tight deadlines.

From the standpoint of the trainees, the programme is often experienced as parallel participation in and recontextualisation of the forms of knowledge and values of two 'communities of practice' (college and company) (Lave and Wenger 1991, Evans *et al* 2006). These two communities provide different but synergistic inputs through the visible curriculum and pedagogy, which have been discussed above, as well as through the hidden curriculum embedded in the formalities and informalities of workplace and college practices. The latter helps learners not just to learn the rules that enable them to produce appropriate competent responses in regularly recurring situations, but also to develop the forms of 'vocational practice' (i.e. mix of knowledge, skill and judgement) (Guile 2008) to vary their response in accordance with the requirements of the situation.

The complex chains of knowledge recontextualisation that take place between the college-based and workplace elements are not always readily forged or recognised because learners often struggle to make the connections. This is because learners as much as mentors/lecturers are inclined to assume that learning is or should be immediate and, in the process, forget the temporal dimension of learning any 'craft' (Sennett 2008). It is only as learners accept that there is always a provisional dimension to learning any academic or professional practice that they develop the capability to meet the professional expectations of the company and sector and to move onto higher level studies with confidence and successful outcomes.

The programme selection process plays a particularly significant part in supporting learner recontextualisation because it aims to identify able young people who have achieved through hard work and self-discipline without the advantages of highly resourced educational support. These learner characteristics, set alongside the 'framing' (Bernstein 2000) of the different types of knowledge in the curriculum and the variety of pedagogic processes, create the personal and organisational conditions to facilitate learner recontextualisation. For example, learners overwhelmingly reported that they felt that they were valued by the college and the company and, as a consequence, respond positively to the high expectations that are placed upon them.

This positive response is important, arguably critical to the success of the programme, given the amount of responsibility devolved to them for negotiating their way in and across the two settings. One notable outcome is that learners generally see themselves as the 'carriers' of knowledge in this programme because the workplace culture and task design support them to forge the connections between their college and company experiences.

The link between curriculum, pedagogic, workplace and learner recontextualisation is underpinned by a strong college-company partnership based on a shared understanding of each parties' cultural

traditions and commitments. In this exemplar, it is the ways in which these synergies are iteratively developed and brought into the curriculum that help the programme both to stretch participants academically and prepare them professionally.

Recommendations

This exemplar illustrates chains of recontextualisation that move backwards and forwards between two contexts that share similar cultures and value systems. Both are influenced by a German cultural and training tradition itself recontextualised in a UK/London context. Both are oriented to trainee/students (in terms of interest and expectations), and both are smallish institutions capable of offering supportive environments for learning and working. Moreover, the company and the college are interested in each other and enjoy a close collegial relationship based on strong yet flexible alignment. Workplace supervisors and managers are expected to support the development needed for fast-tracking able students selected from schools in less privileged London boroughs: supervisors and managers take this seriously.

The success of this model is rooted in these features. Providers and employers seeking to replicate this model need to build from genuinely mutual interests and strong existing ties, found most often where there are historical and cultural connections, for example, between a company and its local college or particular communities or sectors.

It is important to:

- identify partners whose commitments to education, training and collaborative working are shared;
- establish close working links that engage all levels of the organisation and have visible support at senior levels of both organisations.

Developing a customised national programme that will suit company needs requires:

- a course team and advisory board balanced in industrial and educational experience, with an element of ‘participative memory’;
- mechanisms for reciprocal and collegial decision-making about broad

matters of content;

- discretion at course team level for pragmatic and responsive decision-making about programme details.

To support learners in moving between different forms of knowledge, it is important for the provider:

- to link the traditional academic subjects and sector-specific legislation and procedures through a series of steps that proceed according to a clear programme logic;
- to utilise the experience of cross-over 'staff' professionalized through similar pathways, able to help support students through their 'participative memory' and identification with the specifics of challenges faced.

This requires the course team:

- to organise teaching and learning of procedural and sector-based knowledge in ways that build links between the foundational knowledge and the workplace knowledge embedded in company-specific practices.
- to use different teaching methods for different forms of knowledge e.g. explicit teaching of the theory, laying out the propositions; case studies for procedural and sector-wide knowledge; researching examples close to local practice.
- to bring local work knowledge into the formal curriculum by re-contextualising it into a framework defined by the programme logic.
- to develop the assignment specifications in ways that progressively support the learners in moving between the forms of knowledge.
- to provide learners with formative feedback;

In the workplace, the provision of high quality learning experiences requires:

- organisational arrangements that include visible senior support and practical coordination, both through designated personnel;
- a workplace curriculum that extends far beyond work experience and business-as-usual;
- explicit staff commitment to pedagogy, knowledge exchanges;
- planning of structured development opportunities assisted by easy access to company resources, contacts and contexts.

This can be facilitated further by:

- developing a form of ‘gradual release’ in which development opportunities are structured in such a way that learners encounter increasing unpredictability and demands concerning e.g. time to complete tasks, as the workplace programme progresses;
- encouraging a spirit of inquiry – ‘the practice of asking’ in which learners are encouraged to take knowledge ‘over the boundary’ both ways;
- making increased use methods such as journals, debriefing sessions with peers supervisors industry expert, knowledge exchanges that connect their workplace learning with disciplinary-based and sectoral procedural knowledge.

Thinking through the chains of recontextualisation by tracking particular and specific journeys of knowledge backwards and forwards across the company-college can be helpful in pinpointing how learners can be better supported to make connections – see guidance notes.

Finally, it is essential to recognise that the success of these approaches is only partly based on these conditions being met. It is also based on the nature of the cohort, purposely selected, in pursuit of widening participation policies, as representatives of a diverse and talented group. The fostering of learners’ identities of themselves as capable and enterprising people stems not only from the curriculum and pedagogy but also from their personal characteristics, their prior experiences and their

intentions in applying for and following the programme.

At the strategic level, the programme offers a very powerful way to advance talent and diversity, providing college and company partners can achieve the challenging conditions for its success. At the operational level, it presupposes that:

- the company has equitable, transparent and robust selection procedures
- the college and company actively cohere their pedagogic approaches to facilitate the chain of recontextualisation

Endnotes

ⁱChambers in Germany, particularly German-Foreign Chambers, have extremely high status.

ⁱⁱIt was referred to as ‘pushing against an open door’.

ⁱⁱⁱThis quote is from the college director. ECBM does not preclude working with UK companies but it does look for a level of commitment and a strong chance of sustainability i.e. for ‘companies who always train, irrespective of any government money they might get – according to their own agenda, not the government’s agenda’ (director, ECBM).

^{iv}See the college website for details of the full curriculum:
www.eurocollege.org.uk

^v<http://www.thebrokerage.org.uk>

^{vi}The official entry requirements for an HND are very open e.g. one pass at A-level in a relevant subject or an Access course or work experience or a BTEC National, Advanced GNVQ or AVCE in Business or a related subject. This is therefore a very high-level application of the programme.

^{vii}The first cohort started the honours degree in autumn 2003.

^{viii}The career profile of an investment banker was described as consisting of meteoric rises with careers often over by the age of 35 and ‘moving down’ periods when individuals can no longer handle the intensity of the job combined with the upward pressure from the new generation. Obviously, not all investment bankers are ‘stars’ – a Commerzbank director referred to ‘core functionaries’ who have longer careers.

^{ix}Personal communication with Ian Fleming, the HE Manager at Edexcel (23-01-08). The college enjoys close working relationships with key Edexcel personnel.

*H1 and H2 reflect different levels of cognitive skill. At H1 the emphasis is on 'the application of knowledge, skills and understanding'; at H2 it is on 'application and evaluation of contrasting ideas, principles, theories and practices' (Edexcel 2004, 39).

International Training Service Ltd with DG Helicopters, Defence Equipment and Support, Ministry of Defence

Leadership Development

A pilot programme within the Ministry of Defence to develop strategic leadership capability amongst highly specialised staff.

Executive Summary

This exemplar describes and analyses a pilot programme within the Ministry of Defence (MOD) to develop strategic leadership capability and capacity amongst long-serving and highly specialised staff. The MOD is undergoing considerable organisational and financial change. The specific focus of the exemplar is the work of International Training Service Ltd (ITS) – one of three organisations commissioned to partner with the Ministry of Defence at the pilot stage – to foster change in the organisational culture and practices in the Defence Equipment and Support section.

The exemplar focuses on ITS's work to develop strategic thinking and leadership skills amongst a mature, graduate-level (or above) cohort who brought substantial amounts of prior knowledge and experience into the programme. It describes the process whereby a consulting company recontextualises ideas and practices from management and organisational theory to develop skills by making links between different forms of knowledge and experience. The programme offers a good insight into how to put knowledge to work when there is no formal assessment and no academic progression requirements to fulfil.

Exemplar overview

Within the Ministry of Defence (MOD)ⁱ, the aim of Defence Equipment and Support (DE&S) is: 'To equip and support our armed forces for operations now and in the future'ⁱⁱ. To this end, DE&S procures equipment and services ranging from ships, aircraft, vehicles and weapons, to electronic systems and information systems. It was officially formed on 1st April 2007 from the merger of the Defence Procurement Agency (DPA), the Defence Logistics Organisation (DLO) and the Defence Communications Services Agency (DCSA).

With headquarters in Bristol, the DE&S consists of a number of *clusters* of which DG Helicopters is one (alongside DG Combat Air and DG General Submarines, for exampleⁱⁱⁱ). Each cluster has a Director General and a number of Integrated Project Team Leaders (ITPLs) which together comprise the cluster Board. DG Helicopter ITPLs are a mix of military and civilian personnel: in the case of the former, (group) captains, commodores, commanders and brigadiers. The cluster is physically located in various sites across the West Country including the large multi-role air station – RNAS Yeovilton. A staff complement of 400-500 employees is sub-divided into Integrated Project Teams (IPTs) concerned with particular types of helicopter, Lynx, Sea King etc., or with particular business functions, such as the Helicopter Strategy Team.

The MOD was, however, facing a number of challenges. Pressure on the defence budget meant that:

- mergers were on the cards between specialist sections that had historically been kept separate from one another;
- partnerships were being brokered with industry to either jointly deliver services or even to outsource delivery;
- the labour market was changing and new appointments were beginning to be made on an 'open commercial' basis to secure 'best value', rather than on the basis of 'next in line'.

Consequently, senior figures at the MOD were keen to institute culture change within the MOD itself as much as within functional sections such as DE&S to position the entire department to operate more effectively within this new operating context.

Following a training needs analysis with 200 middle managers (B and C level), which had been undertaken approximately a year before the merger between DPO and DLO, it had become apparent that a significant *skills gap* existed in terms of collective leadership capacity at this level. The training needs analysis had identified five specific areas for development to facilitate upgrading to strategic leadership level:

- Vision setting in a strategic context;
- Empowering teams to deliver change;
- Self-knowledge and ways of assessing personal impact;
- Developing a 'coaching style' of leadership based on 'growing solutions' within teams (as part of a formal shift away from a 'command and control' culture)^{iv};
- Building sustainable relationships with industry as part of the Defence Industrial Strategy (DIS - a recent government initiative for the MOD)^v.

The skills gap existed because traditionally managers in DE&S were people who had reached the 'top of the functional ladder' (i.e. 'operational people' with military rather than career civil servant backgrounds). The wider culture change that was being inaugurated within the MOD, however, required more people able to adopt a 'strategic, transformational style of leadership' rather than a 'transactional day-to-day approach', and they had not previously received support in this regard. Moreover, given increased competition, and the difficulties some incumbents were experiencing when they participated in internal assessment centre exercises, it became clear that a leadership capability building process was required to effect individual and organisational change.

An initiative to address a skills gap in an internal labour market at the interface of management and leadership in a changing organisational context.

Historically, training in leadership and management had taken place at the Defence Leadership and Management Centre (DLMC), which is part of the Defence College of Management and Technology, the largest of three main colleges at the Defence Academy of the UK, now partnered with Cranfield University (the MOD's academic partner).

The MOD chose to source fresh approaches to strategic leadership for the new 'transformational' context, rather than turn to the DLMC. Tenders were invited from Approved Training Organisations (ATOs) for an experimental leadership development pilot (referred to as 'Leading Transitions Programme') based on the five areas for development outlined above. The intention was to identify leadership development strategies and practices that worked well in order to inform a wider leadership programme to be rolled out across the whole of the DE&S to include up to 1000 recipients.

MOD personnel have a historical association with the University of Cranfield. Decision to address the identified skills gap via a series of experimental pilots prior to the establishment of a wider leadership programme.

International Training Service Ltd was one of the three providers contracted from six applicants. It is an independent, employee-owned business established in 1959 as the training and consultancy arm of what was then the Industrial Training Council: a body set up to help to raise the standard of training in UK industry^{vi}. A team of approximately 25 full-time consultants operate out of offices in Birmingham, Leeds, London, Belfast and Edinburgh. The organisation has worked in 54 countries during its 40 year life span; in areas such as organisational development, managing change, leadership development, management development, team

development, partnership development, women's development, coaching-mentoring and evaluation; and with clients as varied as government departments and agencies, large and small private sector companies, international development agencies, local authorities and voluntary organisations e.g. British Petroleum, the Department for Work and Pensions, the Olympic Delivery Authority, QinetiQ^{vi}, Defence Estates, the Department for Children, School and Families as well as with individual universities.

ITS has a strong mission and value system that:

- focuses on *business performance and business outcomes* first and foremost: as the managing director put it, 'we intervene in an organisation's development processes'.
- tackles *organisational and individual effectiveness* in order to achieve business outcomes: 'our focus is on implementation not individuals although to get organisational shift you have to work with individuals' (managing director/consultant).
- seeks to *embed the learning* that led to improved organisational and individual effectiveness into the culture of the organisation: 'because that way the returns on the investment are more likely to continue even if key people leave the company' (managing director/consultant).

Since 1984, ITS has been registered with the ISO 9001 Quality Management System for consultancy services. In addition, the organisation has the following registrations and accreditations:

- Member of the British Quality Foundation and Licensed Training Organisation for EFQM;
- BQF Registered Quality Consultancy and Training Organisation;
- Chartered Institute of Personnel and Development Approved Development and Assessment Centre;
- Approved Centre (3 Awarding Bodies) for Management and Learning

Vocational Qualifications to Level 5.

Principal consultants typically have 10-30 years experience at a high level in development and consultancy of which 5-20 years are with ITS. Most will have a masters degree in a relevant discipline. Senior consultants typically have a masters degree in a relevant discipline and 8-15 years experience in development and consultancy. In addition, most ITS consultants are either members or fellows of professional institutes or societies including the Institute of Management, the Chartered Institute of Personnel and Development, the Institute of Quality Assurance and the HR Society. Almost all ITS consultants are licensed practitioners for the Myers-Briggs Type Indicator (MBTI) and some are qualified to use a range of other psychometrics e.g. 16PF and Team Management Systems. Previous ITS employees usually retain a connection with the organisation as associates: there are 10 associates at the moment.

ITS is an established organisation committed to enabling change: in people and performance, in teams, workplaces and organisations, within and across contexts and cultures.

According to the Development Team Leader (DTL), HR Services, MOD the ITS bid was successful because:

- it was 'comprehensive' (i.e. interfaced developmental strategies with business processes);
- it contained a 'spread of delivery methods'. This was seen as particularly important for a pilot as it gave the MOD more methods to see in action and evaluate in terms of their fitness for the purpose in hand;
- the consultants articulated their ideas well at the formal presentations which formed part of the selection process.

The DE&S pilot ran from October 2006 to March 2007. At the time of tendering, potential providers did not know which cluster they would be

working with, were they to be successful. These were selected later. Several reasons were advanced as to why DG Helicopters was selected: the status of the cluster was rising because helicopters (rather than fixed-wing aircraft) are needed in the current operational areas of Iraq and Afghanistan; and, the cluster had become isolated – geographically and professionally.

The target group consisted of thirty five participants, aged 30-50, who were a mix of career civil servants and military people with different backgrounds - Engineering, Science, Administration^{viii}. The Armed Forces are renowned for their serious engagement with workforce-career development. Participants reported how their jobs changed every two years: 'you get lots of variety in the MOD – you get the chance to do lots of different things at different stages of your career'. Moreover, there are opportunities to gain a range of academic qualifications. Some of the participants had been in receipt of management training as part of their continuing professional development. The participants that engaged with this programme were described as 'highly qualified people' (managing director/consultant).

A learning organisational culture that suggests well-developed learner identities and professional conduct that is already infused with theoretical perspectives and most probably characterised by high levels of tacit knowledge.

Putting knowledge to work in the design environment (content recontextualisation)

From the outset, ITS understood that the pilot programme needed to link with some ongoing existing requirements, namely, the use of the Myers-Briggs Type Indicator (MBTI) and 360 degree feedback.

This type of cooperation and resource sharing is a useful strategy if values and understandings are compatible and synergistic.

In keeping with its values, ITS 'made sense of the client's requirement' (director/consultant) by diagnostically embedding its project team in the culture of the organisation so as to ensure the appropriateness of their intervention. This is because, as one of the consultants pointed out, there is often an 'expectation gap' as far as commissioning organisations are concerned: 'when we approach an organisation, they are already at a distance from us in terms of what they expect by way of learning design and learning process.' In the diagnostic phase, the consultants were keen to understand:

- The organisational context – strategy, culture, critical success factors, structure - including key players and stakeholders, key external drivers, real issues and 'hot spots', current metrics for impact evaluation.
- The management and leadership requirements – performance, competences and behaviours required - data gathered here can be used as a baseline for evaluation as well as to inform design.
- How the proposed development process is envisaged – the development culture, blockages to achievement, how this initiative will fit with other initiatives, commitment from senior leaders.

This process of working with the MOD facilitated was a meeting of minds as regards the best way to proceed.

Shared (provider and client) commitment that the intervention be closely aligned to the organisational culture.

ITS consultants' diagnostic investigations were conducted via a series of steps. First, initial meetings were held with the Development Team Leader (DTL). These were followed by site visits to the cluster and one-to-one interviews with the main stakeholders i.e. the Director General and the ITPLs. The participants selected for the pilot were consulted via focus groups: 'to find out about their understanding of the organisation and where it's going and the challenges that poses for them as individuals and in terms of their work – it's necessary to talk to the managed as well as the managers - people say different things to outside consultants' (director/ consultant). Consultants also gathered documentary data such as business plans, mission and value statements and so forth in order to form a clear view about organisational culture:

- It is essentially a hierarchical culture ('you can't pretend it's not a military context'). Hierarchies remain important, even though there are changes from a 'command and control' to a 'coaching' culture.
- It is an increasingly 'open' culture. One of the consultants argued that 'agreeing to be involved in the Putting Knowledge to Work project is indicative of cultural change' in this regard.
- It is a 'pragmatic, realism culture' in which 'people won't respond to an academic approach - any theory they are using has to be embedded in real business examples so that our Engineering culture can work with real issues'.

The backgrounds, circumstances and requirements of the selected participants were confirmed and fine-tuned. Consultants were advised that even though not all the target group had been beneficiaries of prior management training, the 'pitch' of the pilot should remain at the strategic level.

Diagnostic activities within the organisation helped to ensure the closest possible fit between the intervention and lived realities/business needs.

This diagnostic process is illuminative of the ITS approach to putting knowledge to work in a number of senses. First, diagnosis is paramount, and consultants have developed high levels of expertise in the area. Their key principle is that unless the design is right, the intervention will fail: 'if an intervention is not designed properly – however good everything else is – it's not going to work' (managing director/consultant). In this way, they see design as an investment rather than a cost, something that a commissioning organisation cannot afford not to do. 'Proper' design requires partnership with the client: 'we design with the client and with the people we're working with' (managing director/ consultant). This means that the content of each programme is customised and context-specific: 'I focus on working with them to get a learning design that will work for them – I co-craft or co-create with an organisation an effective learning process in the light of their current and emerging development requirements' (director/consultant).

Secondly, the design of the Leading Transitions Programme was predicated on ITSs' longstanding belief based on accumulated experience that intervention design is an iterative and ongoing process with the commissioning organisation: "they came up with an overall design – came in to discuss – came back with more detail – we worked together".

Working together on design is part of developing a learning process that is customised to specific business issues and requirements – this is seen as having maximum likelihood of success.

Thirdly, ITS is a research-informed consultancy. Consultants already had considerable knowledge about, and experience of, facilitating development, defining it as being about making wise judgements, handling ambiguous situations and managing political risk: 'it is about developing wisdom, intuition, mindsets and applying all of this in order to lead people well' (Bid and PQQ Materials 2007-08). They did, however, recognise the need to research the issue of 'strategic thinking'. As one of them put it: 'we're always telling people to be strategic but actually

helping them to do things strategically is hard'. They found the work of Jerry Rhodes (in Garratt 2003) particularly relevant. It offered a cyclical notion of the phases of strategic thinking by highlighting that there are several significant moments in a manager's lifecycle: the first is when one becomes a manager; the next is when one 'moves into a strategic role' where 'it doesn't matter how hard you work, it doesn't make a difference until you get the thinking bit right'. Rhodes outlines seven strategic 'thinking intentions' (see Figure 1) – 'he tries to work out what's going on in your head when you're being strategic' (managing director/consultant). These were used as a resource by the consultants to help them to design both programme content and process/pitch.

Set level	Setting the level of thought is important in determining the boundaries and scope of the strategic issue...avoids muddled thinking particularly in teams. Being able to move up and down the levels appropriately and 'in synch' aids strategic thinking.
Pretend	Thinking strategically requires us to think beyond what we know or hold dear. Pretend is a low risk rehearsal for action...
Look in/out	Strategy requires us to look in and out... We need to understand the 'outside' through our understanding of the 'internal' and vice versa.
Distin-guish	What is special, what differentiates our organisation/team from others? Distinguish requires the rigorous scrutiny of strategy and is used to assess the extent to which ideas match or fit with strengths and values. It ensures that unrealistic strategies are rejected and gaps between current reality and proposed strategy are identified and bridged. It can be destructive if used inappropriately or too early.

Symb- olise	Sometimes seen as a flash of inspiration, seeing connections between very different things. We need new ideas whether about the future or what is already known. Thinking symbolically instead of literally opens up the chance of seeing new ways forward and increasing creativity.
Value	Identifying what is important to those forming strategy, how they align with the organisation and what will influence what actually gets done. Value informs strategic choices. Good strategies require people who are involved and care about the outcome – hearts and minds.
Code	To code the message can be as important as the message itself. Code is vital when it comes to getting strategy understood and accepted...This is the communication elements – the art of transmitting the message to everyone...

Figure 1: Source - ITS Materials (adapted from Rhodes in Garratt, 2003)

Therefore, the judicious selection of concepts (or sets of concepts, as above) from management and organisational theory is a hallmark of ITSs' approach. Such concepts are used to either help participants in training programmes to elucidate problematic issues or to identify ways of addressing those issues. Over time, the organisation has accumulated a resource bank of theories and concepts – a mix of 'classics' and 'new thinking': 'we don't jettison something because it's not faddy or up to date'. Consultants stay in touch with theoretical developments in their field via conferences and journals. New ideas are road-tested within ITS first: 'We discuss and debate new approaches quite toughly within ITS – Does it fit? Does it add anything? What do we think about it? Is it helpful to us?'

Once an idea passes these tests, ITS include it amongst their repertoire of strategies and tactics that can be used to address clients' needs.

ITS Knowledge Mgt Pyramids

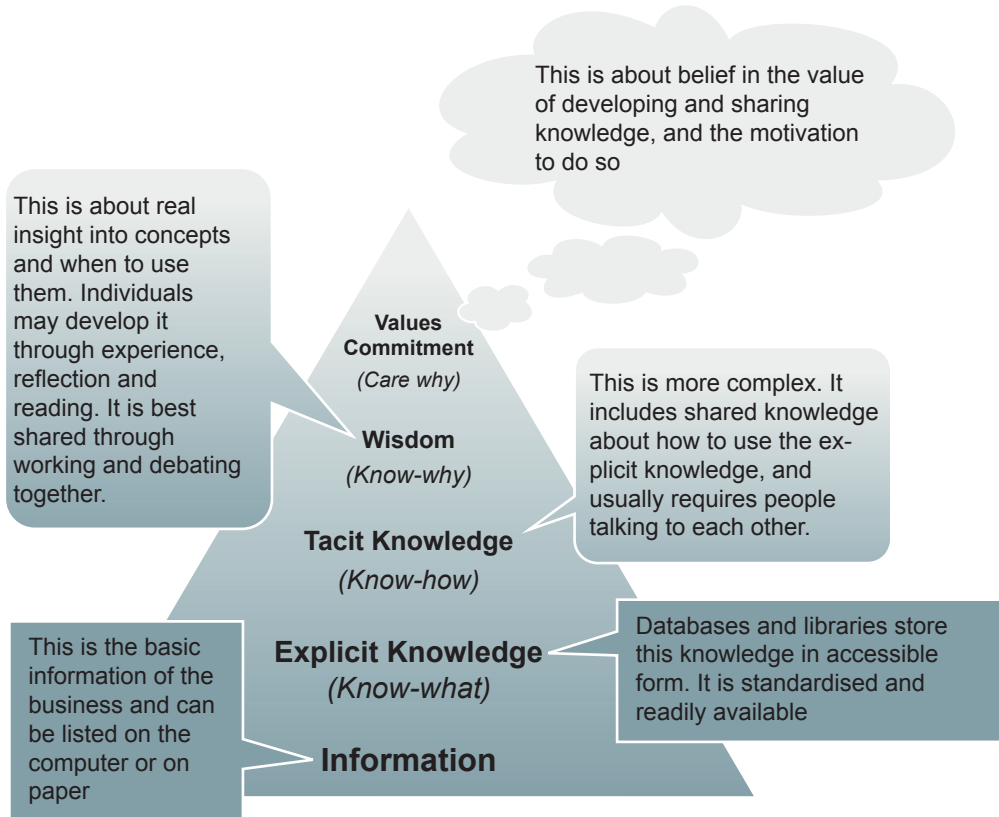


Figure 2: Knowledge Management Pyramid, reproduced with permission of International Training Service Ltd

ITS is a knowledge-producing organisation. The ITS knowledge bank represents their particular selections of theory. It is constantly evolving, informed by current research in the field and by road-testing them with clients. See Guidance Note: Working with theory.

This approach means that ITS consultants always have a range of resources that they can draw on to support organisations such as DG Helicopters that are characterised by a ‘pragmatic, realism culture’ as well as organisations that prefer a more explicitly theoretical approach. Moreover, because of the pilot nature of the programme, ITS was able to assist the DTL to see a range of approaches in action and to contribute to the final selection of theoretical concepts for the wider leadership programme as resources for development and change.

Theoretical concepts from management theory and organisational theory are recontextualised into the programme by the consultants as resources for organisational and individual development and change.

The Leading Transitions Programme had two key elements: a Business Leadership Challenge (BLC) and a Personal Leadership Challenge (PLC). Twin challenges are often used as a strategy in ITS programmes. Both challenges are underpinned by the view that there can be no ‘taught solutions to the leadership challenge’ (or no case studies for that matter). The BLCs are based on ‘live’ issues elicited from stakeholders and participants - ‘we use real issues as a vehicle for development’ – so as to deliver a ‘tangible return on investment for the organisation’ (director/consultant).

Business Leadership Challenges can be seen as work ‘artefacts’ (i.e. they derive from work) and are a central design strategy. They are a generic methodology which can be customised to ‘live’ issues (consultants’ methodology; client’s content). It is important to ensure that the challenges are indeed ‘live’ and authentic so that they really can be appreciated as investments. See Guidance Note: Setting up business leadership challenges.

Each person selects a Personal Leadership Challenge: 'something in their current role which they want to crack and which would be a big shift in their bit of the business' (managing director/consultant). This was the part of the programme where the internal DE&S HR team became involved via the MBTI and 360 degree feedback.

The former is a personality inventory that assumes that variations in behaviour are due to basic differences in the ways individuals (prefer to) use their perception and judgment. MBTI instrument supports the identification and description of individual's 'preferences' and, in the process, throws light onto 'where people are coming from' and how relational accommodations can be made.

The latter offers multiple perspectives on knowledge, skills and behaviours based on a combination of self-evaluation in relation to a set of criteria, and line, peer and subordinate feedback. Each candidate receives a confidential analysis of the gaps between self-perception and the perceptions of others and subsequent coaching in terms of minimising the gap. The DTL feels these tools complement one another because they offer a unified perspective on behaviour and personality and enable people to 'get messages about their blind spots'.

Shared values between the two organisations meant that the DTL was very open-minded about the structuring of the intervention although the number of days was non-negotiable: 'they had four days of delivery – it was up to them how they used it'.

ITS designed 'an interesting and unconventional way of stretching the four days over the six-month period to make the most of the time'. They started with a Launch and Briefing, followed by a two-day session (called The Strategic Leader) plus two one-day sessions (The Strategic Partner and a Review), each session having an organisational and individual focus. ITS have found that this structuring strategy works well because in between the sessions, the participants work on their business challenges and personal challenges supported by relatively unstructured clinics (with regard

to the BLCs) and coaching (for the PLCs).

The espoused programme is a mix of structured sessions, independent work-oriented activities (work-based learning), and more unstructured open spaces for issues and needs that arise during the programme: as the DTL put it, 'it was flexible programming – not a sheep dip'.

The espoused programme is clearly geared to the specific needs, objectives and business challenges facing DG Helicopters and its personnel. Indeed, the design process began with organisational requirements. ITS translated (or recontextualised) DE&S objectives into a learning programme taking account of internal requirements for MBTI and 360 degree feedback. In so doing, the consultants also recontextualised elements of their own value system, approach and experience into the programme.

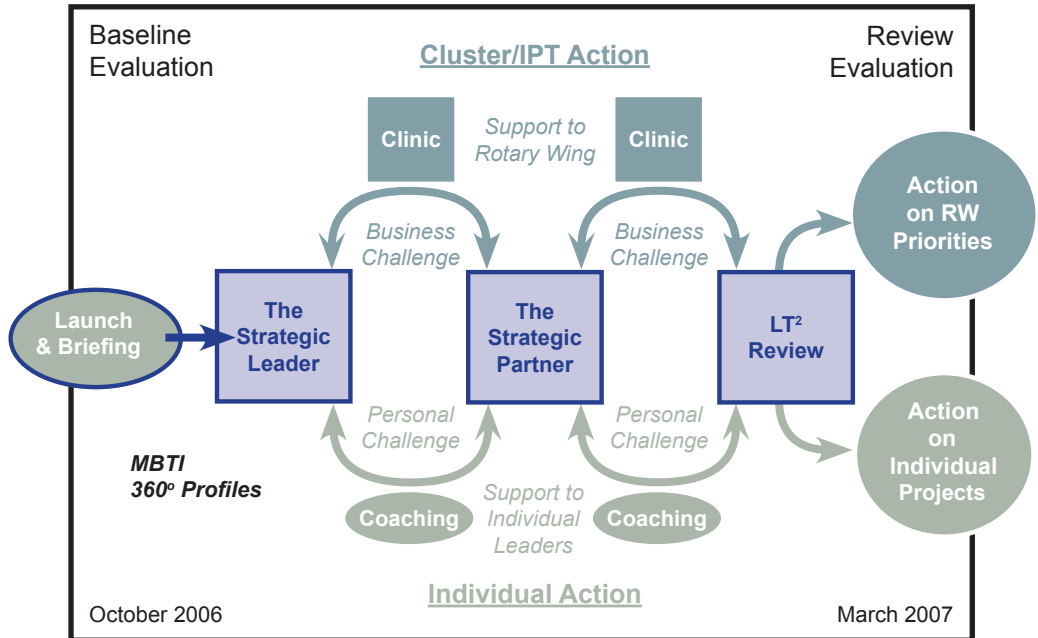


Figure 3: The Overall Programme

Putting knowledge to work in the teaching and facilitating environment (pedagogic recontextualisation)

To ensure continuity between design and facilitation processes, ITS involved the same consultants not least because many facilitative strategies were conceptualised during the design process. The programme began with a three-hour Launch and Briefing session. This was followed by the two-day session referred to above (The Strategic Leader). An in-depth analysis of selected activities within this session allows us to see the approaches ITS use to assist participants to put different types of knowledge to work (see Figure 4 in page 234).

The first main activity on day one - 'Leadership realities – a true story' – started with an IPTL from DG Helicopters presenting a case study of a specific strategic leadership challenge he had faced (in connection with a parliamentary committee). This was followed by a short question-and-answer session for clarification purposes. The whole group was then divided into smaller groups of about four people. Groups were asked to consider how they would have approached the same challenge, using headings and a structure provided by ITS (the IPTL withdrew at this point). Possible solutions/ strategies were then fed back to the IPTL for his reactions - the consultants facilitated this part. The activity ended with a whole-group round-up of the issues raised and some individual and small group reflection.

As well as introducing useful content, this activity fulfilled methodological functions. It:

- provided baseline information for the whole programme: using Rhodes's 'thinking intentions' as a process tool, the consultants used the exercise to 'set the level' - 'this is the level we want to run the whole programme at – it's not about detailed operational stuff';
- sent a strong message to participants that the programme was going to give them experiential practice in thinking strategically: 'It was about forcing them to think through what was quite a difficult

Activity number	Time	Title
1	09.30 – 09.40	Welcome and Introduction
2	09.40 – 11.00	Leadership realities – a true story
3	11.00 – 11.25	Making the programme fly
4	11.25 – 13.00	Transformational Leadership
5	14.00 – 16.45	Organisational Analysis and Culture
6	16.45 – 18.00	Strategic Thinking: The practice field – honing the tools of strategic thinking
7	Dinner	
8	08.45 – 9.00	Key learning messages
9	09.00 – 10.00	Setting up the challenge teams
10	10.00 - 12.30	Getting change to happen
11	13.30 – 15.00	Presentation of the challenge and early thinking to programme colleagues
12	15.00 – 16.00	PLCs: Clinics and coaching
13	16.00 – 16.30	Review and close.

Figure 4: The Strategic Leader two-day session

leadership challenge – and a real-life one – but in a safe way’;

- introduced several methods that would become the norm during the programme. First, the use of small groups and teams as a means of sharing ideas and knowledge and building/extending networks; secondly, the idea of active learning and thirdly, the careful structuring of pedagogic activities so that the participants felt supported by the consultants and by each other.

The next activity - ‘Making the programme fly’ - was shorter and also set out some process-oriented ground rules for the intervention as a whole. Information sheets on topics such as ‘appreciative enquiry’ and ‘feedback conversations’ were used: these emphasised the need for learning and (organisational) change to be built on constructive and sensitive feedback within the group/community. Participants were given opportunities to offer constructive feedback to other people by using the ‘Johari Window’ conceptual resource.

This is a cognitive psychological tool that is designed to help people to better understand their interpersonal communication and relationships. It directs reflective attention to individual values, beliefs and behaviours in terms of whether they are ‘private’ (i.e. known to self and not others), ‘blind’ (i.e. known to others but not to self), ‘open’ (i.e. known to self and others) or ‘unknown’ to both self and others. In this activity the resource acted as a schema from which to adduce the ‘ideal window’ for both strategic leaders and ‘learners’– with maximised openness, appropriate private spaces, working towards greater awareness and minimisation of blind and/or unknown areas.

Many activities are facilitated in such a way as to have dual (or multiple) functions or dimensions – in this case to model learning processes in the programme and in the exercise of strategic leadership in the workplace. ITS is concerned with establishing an environment of trust and valuing in the group as a basis for development and change.

The 'Transformational Leadership' activity started with the consultants offering a 'quick introduction' (a 15 minute 'lecturette'), drawing participants' attention to some basic definitions of leading and leadership. The aim was to identify some patterns emerging from leadership thinkers/writers/models. One of the key concepts introduced was 'T-shaped management' which draws attention to: 'a new kind of executive, one who breaks out of the traditional corporate hierarchy to share knowledge freely across the organisation (the horizontal part of the "T") while remaining fiercely committed to individual business unit performance (the vertical part)'. The vertical part of the T refers to 'how to do things'; the cross of the T refers to making connections.

This activity also illustrates the ITS approach to working with theory: 'we are short and sharp with theory – short, sharp hits from us – we're not up front for very long - we don't hang around with the concepts - the idea of hanging around upfront talking conceptually for long periods of time is anathema' (director/ consultant).

What we see here is consultants 'presenting' ideas that have a theoretical root so that participants can get a working sense of the principles and generalisations contained within it and the ways in which theories and concepts allow people to see relationships between things. In this way they are offering knowledge that is unlikely to have been available in the work context itself.

The general principle is that, as soon as possible, the participants 'go away and do something with the theory – we get people doing things with the ideas in terms of their own practice'. In this activity, participants (in small groups) were tasked to use the theory to illuminate, evaluate, theorise and/or frame their own leadership style and suggest ways in which it could be shaped, changed or improved. This activity was followed by 'sharing and summary'.

The theory is already practice-ready so relating it to work is relatively straight forward. The facilitators 'launch' the theory in the direction of practice by presenting it as something that is pragmatic and flexible - a lens through which to look at practice.

In activity six, 'Strategic Thinking: The practice field – honing the tools of strategic thinking', the facilitators introduced Rhodes's concepts, already discussed, in the short, sharp style outlined above, along with other theoretical resources. One such resource was Henry Mintzberg's (2003) 'Strategic Thinking as Seeing'. Mintzberg projects 'strategy formation as a visionary process' and outlines the role of 'seeing' in strategic thinking as follows: seeing ahead; seeing behind; seeing down; seeing below; seeing beside; seeing beyond and seeing it though.

After the introduction, a three-way role-play was set up to give participants the chance to try out the resources through, for example, being asked to: 'describe future success to junior colleagues'; 'engage with a difficult customer'; 'manage a leader to accept new ideas'; 'influence a stakeholder and present ideas to a politician'. The pedagogic intention behind the role play was to provide a safe but stretching environment to assist participants to evolve and even change their normal practice at various levels: acting strategically, responding strategically and giving constructive feedback on the interaction.

Structured opportunities to highlight, analyse, and practice strategic thinking in relation to realistic strategic thinking demands and to exchange their learning with each other in a safe and supportive environment.

The Business Leadership Challenge highlights additional aspects of the ITS approach to facilitation. A number of pedagogic steps was involved. Facilitators were attuned to potential challenges during the design phase. Although participants brainstormed, discussed and prioritised ideas and possibilities at the beginning of the programme, it was the Director General and the IPTLs who classified and sorted the emergent challenges

and agreed amongst themselves who was most the suitable person to act as sponsor in relation to each. Care was taken to ensure that each challenge was distinct and clear, with no overlap between them.

Senior manager sponsorship is an innovative strategy to ensure that the challenges remain business-focused.

BLC teams were established against set criteria one of which was to work with colleagues from different parts of the cluster (another example of a dual function – in this case to achieve the challenge *and* to extend intra-cluster networking). Each participant had 25 hours to devote to the challenge. Assuming groups of four, this translated into 100 working hours per challenge. Preparation was undertaken during the Strategic Leader session: participants worked in their teams to describe goals, critical success factors and measures in relation to their particular challenge. The SMART goal setting process was used (i.e. setting goals that are Specific, Measurable, Attainable, Realistic and Timely). Once the challenges were underway, clinics were available to support groups/individuals with any issues arising. Each group presented the fruits of their labours on the last day of the programme (with the sponsors in attendance); the consultants reported the presentations as ‘very impressive’.

BLCs are an effective way of forging relationships between different theory and practice. Clinics are flexible spaces where tailored support can be sought if the challenges hit unpredicted, unintended or difficult patches or if participants need to check their thinking. They are also integrative spaces in that they involve consultant and group/participant working together in a very focused way – pooling knowledge, resources and ideas. Feeding back to sponsors closes the loop in terms of ‘putting knowledge to work’.

The training programme described above is also based on a number of general pedagogic principles:

- a two-way process between theory and practice, where theory is used to illuminate practice and practice is also used to illuminate and test out theory. Participants are invited to ‘destroy the theory – break the programme – strip it down – find the flaws’ – in order to encourage them to be proactive rather than reactive.
- an openness to ‘process’ by ‘working in the moment with issues as they emerge’. This pre-supposes that consultants ‘help people to think things through - rather than tell them – telling is an easy strategy – we’re not a “telling organisation” – it doesn’t work’. This strategy requires high levels of (probably tacit) knowledge: ‘you have to know the models inside out’. With knowledge comes the confidence ‘not to be thrown by questions and when people say “it’s not like that here”’.
- a cumulative and iterative dimension to the implementation of the programme which is similar to the dual/multiple functions of activities and resources. Models and ideas introduced in one activity are reworked and reinforced in later sessions and blended with other resources at a different level and/or for different purposes.
- each session comprises input + discovery + reflection: as the consultants put it, ‘we always include one element of each but in different orders’. So, for example, ‘in a piece of organisational cultural analysis – they’d have done a questionnaire, looked at results in small groups, then we help them to plot patterns in terms of the culture of their organisation’ i.e. discovery + reflection + [guided] input.
- a commitment to doing things in threes, for example: ‘we use three different theoretical models in each session or for each theme’ - to allow theory to ‘speak’ to as many participants as possible, and to communicate multiple perspectives and possibilities rather than suggesting ‘a correct way’.
- A commitment to building on prior knowledge, experience and work expertise throughout the programme. Ample opportunities are provided for the participants to contribute from their knowledge base

as well as for consultants to ‘pool’ their knowledge. For both parties, reflective activities allow time for tacit knowledge to be recalled (or brought to consciousness for the first time) to contribute or ‘pool’ their knowledge.

- a balance of support and challenge. Although the overall facilitative ethos is supportive, the consultants claim that ‘we can be quite muscular in our presentation and style’. They cited examples of intervening ‘if people are badly behaved’ and undermine the ground rules that have been carefully crafted and agreed by all parties. Moreover, although sharing knowledge is seen as important it does not exhaust the pedagogic encounter: ‘We explore and extend their knowledge – but will inject knowledge if we think they’re pooling their ignorance – we don’t just stand back’.

Taken in combination, these principles foster a strong sense of collaborative inquiry in relation to organisational and individual challenges. Moreover, because it is an un-assessed, though not un-evaluated programme, both parties have the autonomy to determine the process-content relation unencumbered by external considerations.

Putting knowledge to work in the workplace environment (workplace recontextualisation)

The process of putting knowledge to work in the workplace environment began during the programme itself via the two challenges. In overall terms, the participants bring their work knowledge through their description and accounts of different aspects of practice into the programme – rework, develop and extend it in a variety of ways (including bringing it into relationship with other forms of knowledge) - and then set about recontextualising their transformed knowledge in new forms of discourse and practice in the workplace. ITS support this recontextualisation process through the provision of such resources as their ‘Knowledge Management Pyramids’ (see Figure 2).

This encourages participants to see themselves as working their prior and new knowledge through the following series of stages: Information (i.e. codification of business and process knowledge), Explicit knowledge (i.e. knowledge contained in databases and in Libraries and on the Intranet), Tacit knowledge (i.e. the shared but not necessarily consciously articulated forms of knowledge), and Wisdom (i.e. their accumulated individual and organisational ways of acting) and Values and commitment (i.e. motivating everyone to share and develop knowledge and practice). The end point ‘values and commitment’ implies a ‘belief in the value of developing and sharing knowledge, and the motivation to do so’

Workplace recontextualisation was the guiding principle for the whole programme.

Perhaps because it was a pilot programme, the DTL attended most of the sessions. He acted as a kind of ‘boundary worker’ by for example doing some context setting to reassure the participants about the connections between their own organisational culture and the programme that the ITS had designed. In another session he made a work-related connection between Myers-Briggs and the ‘ITS cultural wheel’. This involved using

explicit knowledge provided by MBTI of the mix of personality preferences in the training programme in relation to the desired new type of culture and practice. This exercise of ‘checking personalities against workplace cultures’ allowed people to begin to see why cultural change is difficult in the organisation: ‘We want to be over *there*, but most of our engineer personality types are over *here*!’ Once this became clear, the DTL moved the discussion on by posing the question: ‘what does this mean for us – what can we do about it?’

There is much to be gained by having other managers in the programme from time to time: ‘they liked to see the corporate organisation there – it was good for both sides’ (DTL).

To evaluate the initial impact of the training programme, the DTL and the HR team^x undertook a baseline 360 degree feedback evaluation before the intervention and repeated the process as soon as the pilots had finished (some control groups were included to increase the validity of the evaluation and some supplementary meetings with participants were held).

In addition, each pilot developed its own first-level internal evaluative mechanisms. ITS used a ‘message sheet’ system for this purpose. At the end of each session, and at the end of the programme as a whole, each participant crafted a set of post-it messages: to colleagues in the programme, to the facilitators and to the ITPLs in the cluster. The purpose of the messages was to feedback key observations. Facilitators did the same for their clients (the DE&S), highlighting issues that had emerged during the programme which held implications for practice and/or for the next stage of the leadership programme, for example, participants expressed the following messages to Rotary Wing Cluster seniors: ‘utilise our aspirations and capacity’; ‘I hope the programme is built upon and extended’; ‘I think the pilot will bring on effective leaders’.

The message sheet strategy is a positive and uncomplicated way to monitor the impact of the programme and its connection to the workplace including ideas for changes that could be made along the way in these regards.

The DE&S felt that the ITS programme had been particularly successful in supporting participants to recontextualise the knowledge and insights they gained from the programme because:

- the diagnostic process, the time spent within the organisational culture and the detailed design process paid dividends: 'ITS were good in terms of working with our culture';
- the Business Learning Challenge served as a generative way to connect the programme to business requirements: 'That was good learning for us – as a way of embedding the issues in work'. A key aspect of that learning that was taken into the next phase of the programme was to ensure that the time period was longer so that the challenges could be more fully developed: 'The project work took time over and above normal work – more than the days originally allocated – it's a question of length rather than hours – we needed more months';
- the consultants' way of working with theory - 'working with small theories' – complemented the DE&S culture: 'we didn't want anything too academic – we wanted theory that we could inject and embed in our pragmatic situations';
- the ITS approach developed the DTL's own thinking - he was now of the view that: 'you need the theory to hang the rest off';
- the methods deployed within the programme and the emphasis on sharing knowledge contributed to the reduction of isolation within the cluster and created the conditions for ongoing peer support: 'There was not a culture of cross-team working beforehand - cross-team relationships were strengthened'; 'they developed a team spirit';
- better work relationships developed as a result: 'we saw some shifts

in practice in the 1:1 sessions - individuals having more productive and collaborative relationships, thinking across boundaries, we saw people monitoring their behaviours more'. The facilitators bore this out: 'we saw some relationship breakthroughs in the group sessions on the action learning projects';

- a shared understanding of strategic leadership was developed: 'They created a common mindset about what leadership is and the skills it requires'. This suggests that ITS were successful in their research around the nature of strategic thinking and in the way they communicated that.

Putting knowledge to work in the learning environment (learner recontextualisation)

The focus here is on how the participants developed during the programme, how they made relationships between forms of knowledge and how congruent their accounts of their activities were with foregoing accounts^x.

Participants endorsed the way in which ITS consultants 'got to grips with the MOD culture' and 'how it differs from other businesses' – again reinforcing that time spent on diagnosis and design was well-spent. Participants were able to put forward some general design recommendations for the wider leadership programme:

- The importance of 'thinking through the design fully – how it's all going to hang together – there shouldn't be any gaps'.
- The necessity of briefing participants in terms of 'exactly what is expected of them' and 'how the whole process will unfold in the delivery'.
- The value of designing a customised programme that 'doesn't rely on skill-sets'.
- Programme impact increases if the involvement of senior managers (and industry partners) is designed in.
- Keep the main objective in view: 'I wanted to understand how management and leadership connected given their separation in the MOD – I got that'.
- Retain the idea of resource packs for each session: 'I came away with a tool kit of resources – I've used the "ITS vision ladder": Where now? Where want to be? How get there?'
- Benefits accrue if programmes span an optimal period of time - although it was accepted that there were circumstantial reasons why this pilot was somewhat compressed and that 'ITS normally have

more sessions and a longer time period’.

Participants felt that the Myers-Briggs process helped them to get a better insight into their own abilities and the extent to which they supported or hindered the development of a more strategic leadership culture in the organisation for example, ‘I went onto the course hoping for help with understanding “strategy” and “future visioning” but was bowled over by the Myers-Briggs’.

Participants attributed the potency of the MBTI experience to the level of ‘personal revelation’ and the way it ‘reveals innateness’. There was a level of excitement at learning so much about themselves and how they operate (and could operate): ‘the personal understanding of myself allows me to work better in a team’; ‘I’m better at understanding people in my day-to-day dealings with them’; ‘I understand where I’m coming from and where others are’; ‘I can understand my own preferences and that other people have different preferences’; ‘I modify my speech and method of delivery to engage better’; ‘I can modify my own actions so I can attempt to get more buy-in from others’; ‘I began to understand why some things were obvious to me but not to others’. This was probably the first time that some of the participants had engaged with psychology and the types of self-awareness engendered by the MBTI instruments.

The success of the Myers-Briggs fed into the success of the Personal Learning Challenges. One participant reported how she identified ‘delegation’ as her PLC: ‘I wasn’t very good at delegating – I wasn’t confident enough to delegate work to others when it clearly wasn’t part of their job – I felt uncomfortable with that’. She reported how she ‘got that into perspective – I’ve got over it and do it differently now’. As well as a sense of personal and professional development, the organisation benefits because ‘it gave me more time to get on with other things’.

MBTI was unexpectedly popular perhaps because of the way it engaged with individuals at a deeply personal (as well as a professional) level – it introduced a particular type of psychological discourse into the programme. Self-knowledge and the coaching associated with it, made it possible for participants to change aspects of their behaviour relatively quickly and under their own steam.

Although highly valued, the Business Leadership Challenge was (of necessity) a more complex endeavour from the participants' point of view. In terms of design, the most successful BLCs occurred when: the principles behind the idea of the challenge were clearly articulated; ample time was devoted to planning the challenges; agreed challenges were formally endorsed as real organisational priorities by the ITPLs and when all parties were clear about what was involved and the time it would take.

The Business Leadership Challenges were more of a 'challenge' than the PLCs, partly because of their greater logistical complexity: appreciating and engaging with this complexity is an important part of programme design.

Participants saw the ITS team as experts in the area of leadership development: 'individually they were very knowledgeable' and this reassured them about the value of the pedagogic processes they were asked to engage with. An important dimension of this expertise was the often overlooked insight that working at a strategic level involves taking time out for reflection: 'the value of thinking time was highlighted as vital in strategic thinking'. The ITS team were seen therefore as modelling the content they were facilitating and, moreover, this modelling chimed with the changing culture of the MOD in favour of a flexible coaching style: 'I phoned them up individually several times to seek advice and they were very helpful'. The modelling was also characterised by an 'energy' that was appreciated by the participants: 'your enthusiasm and support has been evident throughout the six months' (from message sheets).

Content and process are very close in this programme – the ways it engaged both are concerned with development and change.

The rich variety of facilitation modes further supported the process of learner recontextualisation by developing a learning community within the programme, one in which individuals felt highly valued: ‘excellent and engaging facilitators who made me (and I’m sure other group members) feel part of an important and “loved” team’. The sense of community extended to intra-cluster, cross-team working. This had a relationship-building effect: ‘I feel we are closer as a cluster’; ‘the sense of belonging to a development peer group has been helpful’; ‘we developed camaraderie across the cluster’.

Perhaps because this was a pilot within a broader strategy, some of the participants were not in leadership roles at the time they were interviewed, so had not had opportunities to put their learning into practice except within their existing teams. Nonetheless, they were able to advance some powerful recommendations for ways in which their learning on the programme could be made most effective in the workplace; recommendations with implications for the wider leadership programme. These included:

- *Formalising the intra-cluster networks that had been created during the programme.* Individuals reported how they had informally maintained contact: ‘I phoned a couple of the people I met on the course for advice and perspective’. Formalisation (and resourcing) of the new networks were seen as means ‘to facilitate use of collective and personal intellectual horsepower’. There was a very real anxiety about falling back into isolation: ‘Look after the people that make up the cluster and don’t leave us behind or exclude us’ (from message sheets).
- *Locating the Business Leadership Challenges within participants’ workloads.* Interviewees confirmed earlier reports that an accurate time allocation for the BLCs be negotiated and agreed with their ITPLs. This needs to take account of the challenges (as well as the

benefits) of working with colleagues in different geographical parts of the cluster – particularly holding meetings across teams, each with different pressures and deadlines. Increased time allocation was seen as increasing the likelihood of a good return on investment for the organisation because the challenges would be better able to reach their full potential.

- *Generating as much communication as possible with the IPTLs.*
Interviewees stressed how important it is to ensure that all management tiers are involved in the programme so that the learning can be maximally embedded in the cluster and its practices and does not become 'something that is pushed from the top but doesn't make it down'.
- *Involving programme 'graduates' in the support of the next cohort.*
Interviewees were of the view that they could be deployed as mentors to participants in the future leadership programme: 'I work alongside some of the people who will be involved in the next phase – I could be an organisational resource'.

Linkage between forms of knowledge was the rule rather than the exception. There were few (if any) gaps. However, for the loop to be fully closed – and impact to be maximised - opportunities are required to embed the development process into the day-to-day business of the organisation. This requires support from senior management^{x1}.

As discussed, the participants were mature-aged, with graduate-level qualifications (or above). They brought substantial amounts of prior knowledge and experience into the programme – of many different kinds. Because of their eclectic learning backgrounds, they were well-positioned to benefit from the design and facilitation modes deployed in the programme. They all cited increased confidence, knowledge and skill as a result of the intervention. It is interesting to note how responsive they were to self-discovery and 'soft skills' development (see also Evans et al 2006).. The personal learning was seen as having the potential to lead to

business benefits rather than the other way around.

A pilot that clearly achieved its objectives by using new knowledge to enhance work knowledge and practice.

Although participants identified a wide range of programme impacts, it is difficult to attach specific outcomes to the pilot because the intention was always to take a 'broad view' so that lessons could be learnt for a larger leadership development programme. On the basis of the positive feedback from learner recontextualisation, the DE&S has commissioned the second phase of the leadership programme catering for about 200 managers. Called 'Aspire', it disaggregates strategic leadership into three steps or levels. Level one is for 'emerging leaders' – 'for managers at practitioner level'; level two is for 'evolving leaders' – 'the first stage of strategic leadership'; level three is for 'excelling leaders' and represents 'proper strategic leadership'. Thus leadership development is now seen as an extended process.

A coda: management recontextualisation. The DTL reported how he could see 'a much greater group development focus in DG Helicopters'; that 'the culture is changing'; greater 'cross-fertilisation of ideas' and more 'collective responsibilities and understandings of leadership'. These levels of success are underscored by the ways in which the ITS pilot informed the conceptualisation of the Aspire programme – particularly at level one: 'level one is similar to the ITS pilot'; 'we took lessons from ITS'.

Commentary on the modes of recontextualisation

The main challenge in this programme is to manage a chain of recontextualisation that starts with a practice-based problem agreed with a client, involves the selection of theoretical resources to assist participants to develop the expertise to address organisational challenges and, in the process, progress to the next employment level.

The workplace generates the conditions and impetus for the recontextualisation of a workplace problem into the new context of a development programme. The consultants use their expertise to translate workplace requirements into the content of the programme (in collaboration with all stakeholders). Their task in this regard is to take account of participants with military (mainly Science) and career civil servant backgrounds; introduce them to the 'languages' of organisational, management and leadership theory and ensure that they have optimal opportunity to contribute from their own experience and tacit knowledge and to learn from each other through experiential practice.

The workplace generates the conditions, impetus and specific problems for recontextualisation into a learning programme. These 'excursions into programme content disciplinary knowledge' are an interesting example of the challenge of recontextualising knowledge from horizontal forms (Bernstein 2000) such as management theory into a development programme. Such forms are characterised by a number of discrete 'languages' of which 'leadership' is one; these are not always easily related to other languages such as 'strategy'.

The recontextualisation of horizontal forms of knowledge in fields such as organisational studies tends to be signalled by 'names' such as 'the Johari Window' or 'T-shaped Leadership' or by theorists' actual name - Rhodes, Mintzberg and so on, as opposed to by location in a cumulative knowledge system. Although this helps participants to use the resources to tackle *particular* problems, it can hinder their use of the resources in relation to *different* problems in the future and/or leave them feeling that

they have 'learnt' this for now.

The outcome is a programme that draws eclectically on theories and concepts to support organisational requirements. Consequently, the theories and concepts serve as resources not normally available within the workplace to better understand and improve practice.

The design and delivery of the programme is informed by a broadly 'constructivist' approach to learning whereby participants are seen as active creators of knowledge within the organisational parameters that framed the programme (the 'constructive' approach draws on a range of traditions: reflective practice, [Schon 1983], androgogy [Knowles 1980], and experiential learning [Kolb 1984]). The consultants use the work process knowledge (Boreham *et al* 2002) they have developed through their exposure to many organisational contexts and different working practices, to assist programme participants to envision how the new challenges that their organisation faces requires them to think and act differently.

The facilitators use every opportunity to bring different forms of knowledge together in the programme activities through an extremely wide range of methods. In contradistinction to most academic programmes, theoretical nuggets and concepts are introduced in a timely fashion in relation to the logic of the organisational challenge and its corresponding implications for individuals. In general, ITS hold considerable control over the selection, sequencing and pacing, that is, the 'framing' of the programme (Bernstein 2000). Varying the sequencing of content and the pedagogic methods in the way that they do, maximises opportunities to forge relationships between the insights into practice that different forms of knowledge offer.

The move from content and pedagogic recontextualisation to workplace recontextualisation is underpinned by the principle of 'activity development' (van Oers 1998). This takes two forms: using conceptual resources to gain a better sense of the new challenges the organisation faces; and using individual challenges not only to consider, but also

to enact in their practice new ways of working, communicating with colleagues and reporting on improvements in performance.

There is a rather strong, but largely implicit, value system or 'regulative discourse' at work within the programme, as in: 'we are *confident* that it will show results'; 'including what we *know* are effective methodologies'. This is probably because the evaluative criteria are negotiated between the DE&S and ITS (and to some extent the participants), rather than being pre-set by an external examination body or national agency. The upside of this arrangement is that the programme can be continuously amended in response to on-going feedback from participants regarding whether or not they are recontextualising the resources made available to them and changing their work practice. The downside is that if participants treat the knowledge resources in an overly instrumental way, there is a risk that they will struggle to either extend their current practice or develop the capability to change and vary their practice in relation to new circumstances in the future.

ITS start from the assumption that the workplace can, in principle, serve as an 'expansive' environment for workforce development, that is, support people to act in new ways and facilitate changes in entrenched ways of working and thinking (Fuller and Unwin 2004). On the one hand, the programme activities, for example, the Business Leadership Challenges, enable participants to develop their strategic leadership expertise by offering them access to learning activities that stretch them and gearing these to emerging workplace roles. This pedagogic strategy underscores participants' motivation to recontextualise, for example, the approaches tried out in workshops for determining priorities with a team or giving feedback to a team member in the workplace. On the other hand, the participants who were mature-aged and highly qualified, were keen to use the programme to develop their position in the internal labour market.

The recontextualisation chain taken as a whole involves the consultants engaging with client requirements to determine the content of a programme (in collaboration with all stakeholders), facilitating the

programme to retain (and refine) the connection with client requirements, and supporting participants to enact their new knowledge in practice via agreeing work-related tasks and providing the appropriate support.

Recommendations

It is important for anyone seeking to replicate this model to appreciate the particular and context-specific ways that ITS put their knowledge of organisational and individual development to work.

To integrate different types of knowledge and their respective knowledge structures into a coherent programme to meet specific organisational goals and issues, it is helpful if:

- The commissioning organisation and consultants share common values as regards the relation between diagnosis and design and delivery.
- The consultants familiarise themselves with the culture of the client organisation via site visits and interviews with key stakeholders (including potential participants), so as to fine-tune the brief and pick up ideas for programme content.
- Consultants take programme design very seriously, rather than opt for packaged solutions, and customise existing conceptual and pedagogic resources to the client-organisational position regarding the theory-practice balance
- Learning activities are designed that draw content from the 'live' environment.
- The programme allows enough time and space between sessions for participants to use new insights in their work – support mechanisms such as coaching or clinics help to maximise the effectiveness of this strategy.
- Consultants are appointed who are experienced and knowledgeable enough to work 'in the moment'.

To convey the purposes of different types of knowledge and to support participants in using knowledge as a resource to engage with and develop their practice, it is important to:

- develop process-oriented ground rules for the programme to create a safe environment for practice and disclosure e.g. the need for constructive feedback;
- sequence the programme so that models and ideas interact and build on one another – thematically and practically, sometimes theory first, sometimes action research first etc.;
- draw on a variety of teaching and learning methods – ‘lecturettes’, case studies, modelling, group work etc – to help participants to use theory as a lens through which to look at practice, see theory as contestable, and see the workplace as the context for trying our new ideas;
- recognise and value the extensive knowledge bases of the participants and the fact that much of their knowledge is tacit;
- use clinics and coaching where consultants and participants can work together to embed new learning into work practices and to enact another form of ‘gradual release’;
- use a combination of business and individual challenges to deepen understanding and maximise learning by taking it over the boundary into the actual work environment;
- provide learners with frank and constructive feedback from a variety of sources – ‘in the moment’; from consultants; from peers; from senior managers. Be prepared to challenge as well as support.

To ensure that participants are supported in embedding new learning in work practice, it is important that senior managers:

- act as boundary workers within the programme by asking questions such as: What can we do about this?
- formalise and resource networks that develop during the programme.
- play a respondent role when the groups present the results of the Business Leadership Challenges.

Finally, it is essential to realise that the success of the above process is only partly based on design and facilitation. It is also based on:

- the group (experienced managers) who are motivated to use the intervention to develop a strategic leadership dimension to their work practice and to change their thinking in the process.

Endnotes

ⁱThe Ministry of Defence is the UK government department responsible for the implementation of defence policy and is the headquarters of the British Armed Forces. Its principal objective is to defend the UK and its interests. The MOD manages the day-to-day running of the Armed Forces, contingency planning and defence procurement.

ⁱⁱSource: <http://www.MOD.uk/DefenceInternet/MicroSite/DES/OurPublications/DefenceEquipmentAndSupportBlueprintTheFutureOperatingModel.htm>

ⁱⁱⁱFor organisational chart see: http://www.aof.mod.uk/aofcontent/i/orgchart/aof_deands_org_chart.pdf

^{iv}Command and control is ‘a theatre approach which the military imported into wherever they are working’ (director/consultant). It refers to giving people (subordinates) objectives and letting them think about how to achieve them: as opposed to coaching which is about releasing and harnessing team potential.

^vLaunched in December 2005, the Defence Industrial Strategy aims to improve how military equipment, supplies and services are procured and supported to ensure that the capability requirements of the Armed Forces are met. To achieve that end, industry requires a clear idea of MOD priorities and the MOD needs to continuously analyse industrial capacity to deliver those needs. The DIS has involved a programme of internal change within the MOD and the setting up of new strategic partnership arrangements with industry.

^{vi}See: <http://www.itsconsult.com>

^{vii}QinetiQ is a private sector defence organisation.

^{viii}According to one of the participants in the programme, military

personnel are traditionally taught 'leadership'; civil servants are taught 'management'. This highlights the different historical cultures within the organisation which the process of 'transformation' is presumably addressing.

^{ix}Although third-party evaluation was also planned.

^xThe data set is relatively small in this regard. One evaluation session was attended where four participants attended, two of whom were followed up with telephone interviews.

^{xi}There was some dispute about this in the interviews. The suggestion was made that the participants in the programme were senior enough to embed their learning in day-to-day business without the say-so of the ITPLs.

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Glossary of Terms

A Level	Advanced Level
ACII	Associate of the Chartered Insurance Institute
AMO	Approved Maintenance Organisation
AMTO	Approved Maintenance Training Organisation
APL	Accreditation of Prior Learning
AS Level	Advanced Subsidiary Level
ATO	Approved Training Organisation
AVCE	Advanced Vocational Certificate of Education
BA	Bachelor of Arts
BAFTA	British Academy of Film and Television Arts
BBC	British Broadcasting Company
BLC	Business Leadership Challenge
BQF	British Quality Foundation
BTEC	Business and Technology Education Council
CAA	Civil Aviation Authority
CATS	Credit Accumulation and Transfer Scheme
CCN	City College Norwich

CCS	Creative and Cultural Skills
CEO	Chief Executive Officer
CII	Chartered Insurance Institute
CMS	Certificate in Management Studies
CoVE	Centre of Vocational Excellence
CR	Content Recontextualisation
CV	Curriculum Vitae
DCSA	Defence Communications Services Agency
DE&S	Defence Equipment and Support
DfEE	Department for Education and Employment
DG	Director General
DipCII	Diploma in Insurance
DIS	Defence Industrial Strategy
DLMC	Defence Leadership and Management Centre
DLO	Defence Logistics Organisation
DMS	Diploma in Management Studies
DPA	Defence Procurement Agency
EASA	European Aviation Safety Agency

EC	European Commission
ECBM	European College of Business and Management
EdD	Doctor of Education
EFQM	European Foundation for Quality Management
FCII	Fellow of the Chartered Insurance Institute
FD	Foundation Degree
FdA	Foundation Degree (Arts)
FE	Further Education
FIG	Financial Industries Group
FSA	Financial Services Authority
FSSC	Financial Services Skills Council
GCSE	General Certificate of Secondary Education
GDP	Gross Domestic Product
GNVQ	General National Vocational Qualification
GTL	Glass Training Ltd
HE	Higher Education
HEFCE	Higher Education Funding Council for England
HN	Higher National

HNA	Higher National Award
HNC	Higher National Certificate
HR	Human Resources
HRM	Human Resource Management
HND	Higher National Diploma
ILM	Institute of Leadership and Management
IPT	Integrated Project Team
IPTL	Integrated Project Team Leader
ISO	International Organisation for Standardisation
IT	Information Technology
ITS	International Training Service Ltd
JAA	Joint Aviation Authority
KLM	Royal Dutch Airlines
LLC	London College of Communication
LR	Learner Recontextualisation
MA	Master of Arts
MBA	Master of Business Administration
MBTI	Myers-Briggs Type Indicator

MOD	Ministry of Defence
MSc	Master of Science
MSC	Management Standards Centre
NASA	National Aeronautics and Space Administration
NSA	National Skills Academy
NU	Norwich Union Insurance (Aviva)
NVQ	National Vocational Qualification
OCR	Oxford, Cambridge and Royal Society of Arts
O-I	Owen-Illinois
PKTW	Putting Knowledge to Work
PLC	Personal Leadership Challenge
PDP	Personal Development Plan
PPD	Personal and Professional Development
PR	Pedagogic Recontextualisation
QAA	Quality Assurance Agency
QCA	Qualifications and Curriculum Authority
QCF	Qualifications and Credit Framework
RNAS	Royal Naval Air Station

RW	Rotary Wing
RWC	Rotary Wing Cluster
SSC	Sector Skills Council
TBA	Time-constrained Supervised Assignment
UEA	University of East Anglia
UK	United Kingdom
USA	United States of America
WBA	Work-based Assignment
WBL	Work-based Learning
WR	Workplace Recontextualisation
YTS	Youth Training Service



T · L · R · P
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& LEARNING
RESEARCH
PROGRAMME

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ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

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