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P K t W

# Putting Knowledge to Work

## Cross-cutting Themes

These cross-cutting themes 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 cross-cutting themes refer to concepts, exemplars and further guidance notes that can be found on the web pages xxxxxx.

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T·L·R·P TEACHING & LEARNING RESEARCH PROGRAMME

E·S·R·C ECONOMIC & SOCIAL RESEARCH COUNCIL

LCCI London Chamber of Commerce and Industry COMMERCIAL EDUCATION TRUST

wle Work-based learning for education professionals
A Centre for Excellence at the Institute of Education

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| **'Multi-faceted Partnerships with Industry'**<br>Embedding a partnership principle across the whole programme: what makes the difference? | Partnerships with industry are most pronounced in the Media Practice Foundation Degree. This theme touches upon all expressions of recontextualisation, particularly when read in conjunction with the case-specific guidance notes from the Media Practice exemplar. |
| **'Gradual Release'**<br>The sequencing of knowledge in a programme and the gradual release of responsibility from 'educator' to learner in educational and workplace contexts. | Gradual release is particularly prominent in the Aircraft Engineering Foundation Degree. It will be of interest to those concerned with Putting Knowledge to Work in the pedagogic and workplace environments. |
| **'Enacting New Knowledge'**<br>Using 'learning conversations' in work-based learning to move beyond reflecting on prior and existing learning. | This theme was an important feature of Management Development in the Glass Industry with resonances in other cases. Articulated from the learners' perspective, it will be of interest to those concerned with Putting Knowledge to Work in the design, pedagogic and workplace environments. |
| **'Utilising Company Resources'**<br>Bringing information about company practices into relationship with course modules. | Most evident in programmes in the Finance field, this practice is relevant to all those concerned to use workplaces as 'living case studies' i.e. to programme designers and teachers/facilitators/ mentors in colleges and workplaces. It should be read in conjunction with the case-specific guidance notes from the Financial Services and Commerzbank/ECBM exemplars. |
| **'Diagnosing Company Problems and Solutions'**<br>Aligning an intervention to an organisational culture: 'unless the design is right the intervention will fail' | This theme has relevance for those concerned with Putting Knowledge to Work in the programme design environment. Most clearly exemplified by International Training Service Ltd., the practice is important in all contexts where customer requirements are paramount. It also has applications where particular company needs are to be taken into account in the design of wider programmes. |
| **'Using Industry Educators'**<br>Bringing real-world perspectives into teaching without losing sight of academic and/or education-related requirements. | This theme will be of interest to those concerned with Putting Knowledge to Work in teaching, learning and workplace environments in ways that reflect current industry expectations and standards. All of the case-specific guidance notes require industry educators to a greater or lesser extent. |
| **'Relationships with Professional Bodies: dual accreditation'**<br>Meshing professional qualifications and Foundation Degrees: establishing a critical mass of compatibility. | Dual accreditation featured in the Aircraft Engineering and the Financial Services Foundation Degrees. The theme is of most relevance to those concerned with Putting Knowledge to Work in the design environment in contexts where dual accreditation is likely to enhance learners' employability. |

# MULTI-FACETED PARTNERSHIPS WITH INDUSTRY

One of the major challenges facing any work-based programme is to involve industry actively in the programme. Although 'working with industry' characterises every exemplar, it is most pronounced in the Media Practice Foundation Degree at the London College of Communication (LCC) where a partnership principle characterises all of the expressions of recontextualisation and where the course team succeed in accessing learners to the labour market as well as to further study at honours degree level.

This note outlines a number of key principles, strategies and practices that have really made the difference in the Media Practice Programme in this regard. They can be used by anyone who is keen to embed a similar partnership principle across the whole of their programme in order to actively involve employers, educational institutions and learners in the recontextualisation process. In combination, these principles, strategies and practices create a multi-faceted industry-college interface which results in a strong, focused curriculum reflecting the strategies, disciplines and realities of production in film, video and television:

| | |
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| **1. Set up an Industry Steering Group.** | |
| **LCC did this at the outset to inform the design of the programme and to monitor its industry currency thereafter. The steering group comprises individuals with broad knowledge and experience of the industry and some former LCC learners: *"We have a strong industry panel, some have BAFTA awards, all are working practitioners; areas covered are producing, writing, directing, working with actors, casting, cinematography, location management, editing etc"*** | **A steering group is particularly important in a fast-changing industry. Obviously it requires the initiators to have industry experience and networks to draw upon. It may take time to build these up.<br>A steering group can scrutinise course proposals with particular reference to the practical modules.** |
| **2. Course design mirrors the industry.** | |
| **In this exemplar, parts of the programme are organised according to industry functions such as 'production' and 'post-production'.** | **This can provide a teaching and learning environment that is close to industry professional standards.** |
| **3. Recruit industry-active staff.** | |
| **The course director has a background in sound design in feature films** | **This means that the method of recruitment** |

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| and TV. One of the part-time staff members is a practising writer and director; the other is a well-known producer. Each contributes specialist skills and gives learners ready access to their industry networks. This contributes to high employment rates post-graduation.<br><br>Members of the Industry Steering group are drawn into teaching on an occasional basis. | may need to take account of the nature of the industry – in this case an informal and networked labour market. Industry-active members of staff help to ensure a common value system and access to the industry/to the real-life labour market. |
| **4. Use some teaching strategies that mirror the industry.** | |
| In this programme, such strategies include team work, live briefs, production diaries, portfolios, 'crewing-up' and operating in 'role' i.e. as a director, producer etc. Teachers are able to give very specific and up-to-date advice to learners especially in relation to practical projects e.g. 'the classic way to do a documentary edit'. They also operate in an informal way that mirrors the industry e.g. an open-door policy. | This means that learners operate under real-work requirements and constraints and can practice and develop industry identities. Using industry-specific teaching strategies helps to ensure that learners hit the labour market running. Boosts learners' confidence to succeed in a competitive industry. |
| **5. Use some assessment strategies that mirror the industry.** | |
| In this case: some group assessment; self-assessment; peer assessment. LCC also draws members of the Industry Steering Group into assessment to give professional reactions to students' work. This makes assessment more authentic. | Being able to self-assess and to assess others is a necessary labour market skill. Authentic assessment means that the work learners produce has a life beyond that particular purpose. |
| **6. Employ a work placement coordinator who is industry active.** | |
| LCC uses the services of a successful producer. Staff and Steering Group members also provide placement opportunities for learners. | Placement preparation by an industry expert means that learners gain a rich picture of industry opportunities. Placements are important because they often lead to employment. |

# GRADUAL RELEASE

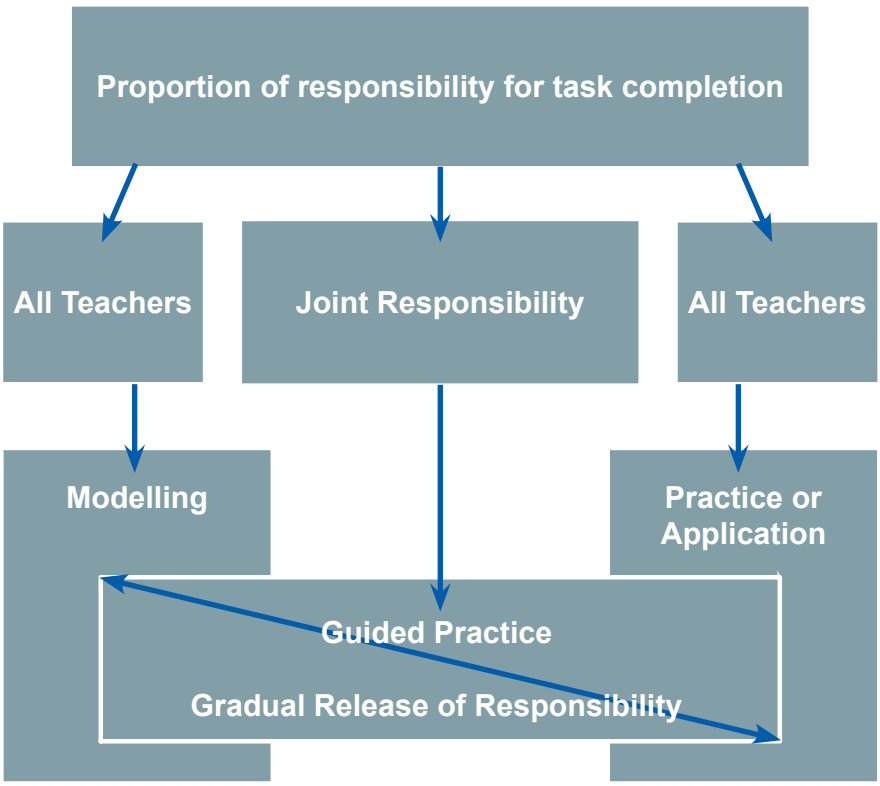
Over the years most planners and designers of work-based programmes have striven to identify the most effective way to teach the theoretical element of their programmes so that learners can use theory as a resource to understand, evolve and even change practice.

The principle of 'gradual release' – described below – that is most visible in the Foundation Degree in Aircraft Engineering is not new. What is new, however, is the way in which this principle has been deployed by practitioners in colleges and workplace managers, supervisors and mentors i.e. those concerned with Pedagogic and Workplace Recontextualisation, to:

I. sequence the knowledge elements of their programme so as to develop learners' theoretical understanding alongside their skill development;

II. support learners to move from a college to a practice environment via the gradual iterative release of responsibility from teacher to learner to supervisor to learner to mentor to learner.

The table that follows brings the sequencing of the programme into focus and the criteria that (sometimes implicitly) underpin sequencing decisions. It is important that knowledge logics and criteria are understood and articulated as explicitly as possible so as to maximise the efficacy of the principle and practices.
The gradual release of responsibility from teacher to learner involves learners being given incremental opportunities across two axes: predictability and time:




The gradual release of responsibility model of instruction
From Pearson and Gallagher, 1983, after Campione, 1981

The table that follows brings the sequencing of the programme into focus and the criteria that (sometimes implicitly) underpin sequencing decisions. It is important that knowledge logics and criteria are understood and articulated as explicitly as possible so as to maximise the efficacy of the principle and practices.

| Sequencing | Criteria |
|---|---|
| 'Academic elementals' first | This knowledge underpins the programme and is recycled and developed in subsequent modules. Low susceptibility to change: 'these modules don't change much unless someone comes and debunks the theory of relativity'. |
| Followed by 'Practice-based + Academic modules' | These modules build on the content of the Academic elementals.<br>The modules are subject to change through the introduction of new technologies or new materials: 'we have to keep our eye on them'. |
| Followed by 'Systems + Skills modules' | These modules draw together and build on knowledge from earlier modules: "All background material for this module will have been covered in other course modules".<br>Increasing orientation outwards to the operational environment.<br>The modules have to be 'continuously monitored for change'. |

The gradual release of responsibility from teacher to learner involves learners being given incremental opportunities across two axes: predictability and time:

**Strengthen and develop their individual skill repertoires through extended time and exposure to tools and equipment with which they are already familiar.**
**"The level of work tasks and standards of workmanship expected will increase progressively as the course and this module are completed".**

**Make mistakes in a controlled, closely supervised and sheltered environment, but one that progressively resembles the workplace itself.**
**"The dummy plane stage is simulated – it's a safe, transitional stage".**

**Move from predictable to gradually more unpredictable tasks where some of the complexities of real-life work (and its artefacts) are built into the learning experience.**
**"Students will need to keep a logbook of all the practical work completed…"**

**Develop skills in the above ways to the point where they can operate under the pressures of the operational environment re: time and unpredictability.**
**"The operational environment is extremely daunting for some people – students' confidence can be destroyed in an instant if they go in too soon".**

# ENACTING-USING NEW KNOWLEDGE

One of the biggest criticisms of the use of 'reflective' strategies in work-based learning programmes is that they are primarily designed to assist worker/learners to gain accreditation/recognition for their existing knowledge, rather than to support them to generate new knowledge.

The 'learning conversation' approach, which was an important feature of Management Development in the Glass Industry, offers a way to escape from this dilemma. Its key premise is that someone with extensive industry and facilitation expertise can design a conversational approach that not only recognises, but also develops workers/learners' knowledge. It is the latter dimension that takes this practice beyond recording existing knowledge, and brings greater benefits to individuals and businesses.

Although on a continuum, this note focuses on learners' perspectives on the impact new knowledge and practices have had in their companies and the particular strategies that supported their development. It will be of interest to practitioners in all fields who wish to move beyond a focus on prior and existing learning, and identify a basis for generating new knowledge from practice that supports future individual and organisational planning, action and change i.e. Learner and Pedagogic Recontextualisation:

| New Knowledge and Practices |
| --- |
| **"I had the confidence in my management skills to lead a transformational process to reduce costs in meeting new business success criteria from the USA parent company".** |
| **"I respond to market changes more quickly".** |
| **"I have reduced costs by over £600,000 through merging two departments. I've come a long way since being a YTS trainee in the industry 25 years ago. I couldn't have got as far as I have without the learning conversations".** |
| **"The learning conversations facilitated my 'systems thinking' – I think differently now".** |
| **"Our business was making a £500,000 a year loss. I knew what needed to happen but couldn't make those things happen. We're back into profitability now".** |
| **"Since I realised that associations and publications had been expanding my knowledge base – I now read in a more purposeful way – I read for new knowledge".** |

**“I wasn’t prioritising in the way that others were, I was doing the things I liked doing or was comfortable doing”; “Now I have more time to do the important things – so the company benefits”.**

**“I learnt to delegate more – it was something I always felt uncomfortable about” - “we have redistributed tasks and responsibilities” - “I’ve given managers more authority to review, plan and act”.**

**“A big clean up impacted on health and safety and reduced lost time due to accidents”.**

**“We have reduced operating costs over 8 months by £180,000”.**

**“I handle meetings differently”; “I’m better at understanding people in my day-to-day dealings with them”; “I’ve removed some of the blockages”.**

**“We do strategic planning a little bit differently now”; “I learnt how important it is to follow up and review initiatives that otherwise might get lost e.g. a 2001 plan for developing and revitalising our surgical division – the division was floundering, now it is making a vibrant contribution to company profitability”.**

**“Helping my son to apply his master’s degree in Management to the family business”; “knowing how to encourage junior employees to take NVQs”.**

# UTILISING COMPANY RESOURCES

This is a generative pedagogic practice whereby company resources (documentary and human) are made available to learners. The idea is that course modules be used to illuminate and explore specific company practices and vice versa. Moreover, the process of acquiring company resources is seen as supporting the development of learners' 'essential skills' i.e. action research, engaging in a professional manner with company colleagues and composing reports and presentations for various audiences. The practice is most prominent in the Financial Services Foundation Degree and to a lesser extent in the Commerzbank/ European College of Business and Management Trainee Programme where the company formed a 'living case study'. This note will be useful to programme designers and teachers/ facilitators/mentors – in colleges and workplaces. It is illustrated here from the point of view of the value to learners (Learner Recontextualisation). Here are two examples of Financial Services modules where company resources are utilised:

| Module | Resources |
|---|---|
| **'The Individual in the Financial Services Sector'** | **Interviews with technical colleagues e.g. class underwriters. Documents such as underwriting guides.** |
| **'Risk Management'** | **Interviews with company risk surveyors and claims handlers to obtain claims and survey manuals and policy and client records.** |

Learners are of the view that there are 'fantastic resources' in companies that can be drawn upon and that the process is enriched if:

- Learners and mentors/managers are informed well in advance of the resources required.
- The company HR department (or equivalent) provide mentors and managers with a detailed outline of the programme, including what company resources will be required, and when.
- Lists of possible company contacts (who have agreed to participate) are circulated to learners and mentors/managers.
- Learners are allocated time during work to make the contacts and follow them up.
- The company sets up and maintains an intranet site in the workplace - where some of the commonly-used resources are stored.
- A code of practice is drawn up for all potential company contacts so that they know about the programme and this particular practice and related issues such as confidentiality regarding the release of documents.
- Teachers use resources to debate theoretical concepts-in-action not as 'givens'.

**Some examples from learners of where the process worked well:**

- “I used historical data from claims systems at work when completing a risk survey at college - I used the data to assess risk measures, potential future risks, etc. I was able to present and analyse real-life data which supported my assignment and improved the overall assignment mark”.
- “My year group organised a meeting with a Commercial Property claims team to understand more about commercial insurance – the meeting was very interesting and proved useful in future lessons due to improved understanding of the subject area”.
- “Company resources were reviewed in the classroom with an evaluation of what can be learnt from them”.

Finally, an example of a double loop: where the company resource is taken over the boundary into the college and then back into the workplace:

**“For one college assignment we had to present a problem in the work-place which had impacted on customer service and explain how we might resolve the issue. I selected a problem concerning a database which had many blockages. With the agreement of my manager, I was able to take screenshots of the database and collate user feedback in order to present the problem and some recommendations. Thereafter, my manager insisted that some of them be adopted; it was an excellent opportunity for me. It was a piece of work that I wouldn’t have had the time to complete in the workplace but through investigation and con-centration during college time I could complete the work successfully”.**

# DIAGNOSING COMPANY PROBLEMS AND SOLUTIONS

The accurate identification of company problems and potential solutions is a crucial aspect of programme design in education-industry, provider-client partnerships, especially where the interventions required are highly specific and specialised. This cross-cutting theme was a particularly prominent and important feature of the approach taken by International Training Service Ltd (ITS) in their work with the Ministry of Defence. Other cases (e.g. the Media Practice FD) undertake similar diagnostic activities but in a more organic way because they are in ongoing communication with the industry. This note will be particularly useful for those concerned with the design of programmes (Content Recontextualisation) with/for clients with whom they are not in regular contact.

**Why undertake a diagnostic phase?**
Commissioning clients may already have a clear idea of the intervention they require and therefore be resistant to the time and expense involved in a 'further diagnostic phase'. The task of the consultant is to overcome this 'expectation gap' by convincing the client that it is an investment not a cost and something that the client cannot afford not to do if the intervention is to be aligned closely to the organisational culture.

**What happens in a diagnostic phase?**
Consultants embed themselves in the culture of the client organisation in order to 'understand the business' - what is special, unusual, and characteristic about it. This involves an internal and an external environmental scan. On the internal side, consultants investigate organisational structure, strategy, policy, key players, real issues and 'hot spots', and the evaluative metrics currently in use. On the external side, they ascertain external drivers, influences, changes etc. This data contextualise the 'problem' that has been presented as the focus for an intervention. The next step (or perhaps more realistically a concurrent activity) is to narrow the scan to that problem: to gather detail about it and 'angles on it'; to relate it to contiguous and contingent initiatives; to find out as much as possible about the types of outcomes that are envisaged and what will help or hinder their attainment. Data gained can be used as a baseline for evaluating the intervention as a whole.

**How is diagnosis undertaken?**
Modes tend to be formal and informal – depending on status and relationships. Initial briefing meetings are usually held with the company instigator/sponsor of the proposed intervention. Site visits include a series of meetings with key personnel with 'an interest' in the intervention. The targeted beneficiaries are also consulted – usually using a focus group method in order to obtain a detailed picture of their requirements, circumstances and predispositions to the intervention. In short, meetings are held up, down and around the espoused 'problem'.

**What is the outcome of the diagnostic phase?**
Original requirements are confirmed and/or fine-tuned. Detail is secured about envisaged outcomes (performances, competences, behaviours, systems etc). The 'pitch' of the intervention is clarified. Commitment from all parties is gained (especially from senior management).

**Once the company problems have been identified then the potential solution can be planned.**

Consultants can design an intervention that has a clear, shared purpose and a close fit to the culture within which it is located. Content can be customised and context-specific. The intervention can be co-crafted and co-created with the sponsor - in the ITS case, the design process was iterative: 'they come up with design – discuss – research and rework - come back with more detail'. Two key design 'messages' emerged from the MOD intervention: Always design in senior management involvement to ensure sustainability and never lose sight of the main problem or objective (it sounds obvious but…).

Remember: ***'Unless the design is right the intervention will fail!'***

# USING INDUSTRY EDUCATORS

The use of staff with industry experience is a feature of every case. This note will be useful to all concerned with putting knowledge to work in the teaching, learning and workplace environments (Pedagogic and Workplace Recontextualisation). Here are some quotes from learners about the value of industry educators:

**"They're very experienced – you learn from the best".**

**"He's very competent – he has a good background – he knows about the industry".**

**"He has worked in the industry - it makes all the difference".**

**"It's great they work in the industry".**

An extract from the CV of a European College of Business and Management (ECBM) lecturer who also worked at Commerzbank:

**May 98 – Aug. 06 COMMERZBANK**

**Member of the Bank's Management Board in London. Secretary of the London Asset & Liability Committee. Last executive function was Director, Transaction Execution Group - managing a team of 8 people responsible for the execution of large financing transactions. Also heavily involved in various internal reorganisations and played a large part in managing the changes.**

**How do industry educators make a difference?**

- "They present information in ways that makes it easy to understand".
- They bring credibility to a programme.
- They have experienced the same (or similar) qualifying pathway as learners.
- They are aware of the challenges learners face and will face in future.
- They understand the working cultures and circumstances of the sectors and particular institutions and companies.
- They tell 'war stories'.

Evidence demonstrates the power of learning from others' experiences (and mistakes!).

**Industry educators gave examples of teaching and learning activities:**

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| **"In a case study exercise I might bring the theory alive by talking about things that have happened in companies – for example Northern Rock"** | **Drawing on his knowledge of sector circumstances and the nature of financial markets in the present moment (Commerzbank/ECBM).** |
| **"I tell stories about people in the City – 'I know someone – this happened – these were the outcomes' – it might be someone who made a lot of money or who acted in an unusual way"** | **He adds topical value to the syllabus by drawing on his knowledge of individuals in the City - he uses particular, high-interest examples to illustrate general principles (Commerzbank/ECBM).** |
| **"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…the only way is to live it and get a sense of the reality within it…."** | **He injects a real-world perspective by recreating the thinking of the finance person through visceral contextualisation and representation of interplays between forms of knowledge (Financial Services).** |
| **"I teach in a 'banking way' – I work with clear objectives and readings – not at all laissez-faire"** | **A teaching style that mirrors the industry (Financial Services).** |
| **"We plan to take the role of Executive Producers in relation to the students' major projects"** | **The adoption of particular industry roles (Media Practice).** |
| **"Every part of a learning conversation is steeped in company life – it has to be like that, or it won't work"** | **The facilitator ensures that industry life is at the heart of learning conversations – he is fully conversant with the Glass industry (Glass).** |

Industry educators, in short, they use their experience to forge relationships between theory, sector-wide knowledge and the practices of particular organisations and particular people within those organisations. They become 'knowledge brokers'. Important as this is, it does not happen at the expense of academic and/or education-related qualifications and experience.

# DUAL ACCREDITATION

One of the enduring challenges of many work-based programmes, for example, accountancy, medicine etc, is to mesh the educational content of a programme with the requirements of a professional association/institute. This challenge acquires a new twist with Foundation Degrees (FD). FDs offer employers and educational institutions a framework to design a programme that reflects both their needs. However, in some cases it is deemed necessary by these parties to also incorporate a professional association/ institute's requirements. This is a feature of the FD in Financial Services and the FD in Aircraft Engineering. This note will be useful to programme designers with similar concerns i.e. Content Recontextualisation.

Dual accreditation requires a practitioner or practitioners with expertise in and seasoned understanding of professional body requirements and regulations, QAA requirements, university validation processes and undergraduate modular schemes. This is easier said than done because of the different histories, cultures and purposes of the different forms of accreditation. A strong partnership is required with appropriate and clear division of responsibilities and a shared vision. The type of issues that the partnership should consider are outlined below.

I. The aims of the two modes of accreditation: can they be made compatible in terms of their respective emphasis on vocational, professional and academic preparation?

II. The indicative syllabi and any learning outcomes: is it possible to find ways to make them serve the common FD purpose - the needs of the sector and educational progression – or are there un-resolved tensions in the FD through trying to secure dual accreditation, for example, the QAA's concern for a higher education student experience and the professional bodies' concern for closeness to their immediate requirements?

III. The issue of pedagogy: can this become a mutual concern for the FD delivery team and the professional association/institute so that learners are not subject to clashes between narrow 'transmission' and 'inquiry' based approaches?

IV. The issue of assessment: is it possible to identify ways to devise common assessment strategies that respect that some requirements are enshrined in law or statute. E.g. in the Aircraft Engineering case, the professional licensing requirements are derived from the recommendations of the International Civil Aviation Organisation while other requirements E.g. workplace performance are employer preferences and equally important within an FD?

V. The issue 'assessment by examination' in the professional context: can the professional body be persuaded to relax their requirements and engage with the broader range of assessment methods that characterise the FD?

VI. The issue of assessment stipulation: is it possible to negotiate with professional associations/institutes as regards:

- *when* assessment has to happen i.e. at particular times of the year?

- *whether* mark schemes and pass/fail requirements are non-negotiable or whether there is room for professional discretion in marking and variation in the application of pass/fail criteria?
- *whether* differences between set pass marks, for example, in the Financial Services FD, the pass mark for the Chartered Insurance Institute (CII) modules is 55% – whereas for the FD the pass mark is 40%, can be waived?

There needs to be a critical mass of compatibility if dual accreditation is to be feasible. The extent of compatibility will determine the approach taken. Here are two examples of successful approaches:

**In Aircraft Engineering the decision was taken to keep the two forms of assessment separate largely because the EASA requirements are enshrined in law as is a pass mark of 75% and a commitment to multiple-choice examinations. This means that although the syllabi content are compatible, the assessment methods are not. Learners study one module but undertake two sets of assessment.**

**In Financial Services some modules are dual accredited and some are part of only the FD or only the CII Diploma. Where dual accreditation happens, it takes one of three forms: 1) module assessment may resemble the professional body specification; 2] professional body assessment may be 'softened' (in negotiation] so that e.g. shorter essays take the place of formal examinations and/or assessment rights are conferred to the provider (usually on a pilot basis for a number of years]; 3] some modules are assessed using FD methods and the professional body accepts this because the former is at a higher level. Learners study one module and undertake one set of assessment.**

Dual accreditation is a complex and time-consuming matter, but one which learners appreciate in terms of their career possibilities. The key is to avoid subsuming one qualification and its associated purposes into another with different purposes and to be aware that changes at the level of assessment have knock-on effects on teaching and learning practices.