Putting Knowledge to Work

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Research and inquiry in programmes involving 'workplace learning' (wpl)

- Rich and practice-based but also dispersed and fragmented
- Focus on learning processes - the dynamics
- Focus on organisation - the relationships
- Focus on equivalence – the standards
- Focus on environments - contexts
- But risks sidelining questions of knowledge and pedagogy

The central challenge
for programmes involving wpl remains:

How best to bring together
subject-based and work-based knowledge,
in ways that meet the
requirements and expectations of
the learner/employee, the employer,
the provider, the awarding and
professional bodies.

Practitioners know how difficult this is…

The need for fresh thinking…

- Approaches to these challenges have typically focused on how learning can be 'transferred' from one setting to another, usually from theory to practice.

- Attempts at transfer continually dogged by the assumed 'abstract' nature of theory in relation to the assumed 'real' nature of practice.

Programmes involving wpl: the challenges

- have always been tricky to design

- Why? involve forms of knowledge characterized by different logics

- disciplinary, work process, professional institute, legal, individual etc

A new and different approach…putting knowledge to work

- Concentrates on different forms of knowledge and the ways in which these are **contextualized** & **re-contextualized** as people move between different sites of learning and practice.

- Encapsulates:

    - the nature of knowledge itself

    - employment practices which shape and are shaped by knowledge

    - ways learners make sense of these contexts, personalize their learning and develop professional/vocational identities

Four modes of recontextualization

Putting knowledge to work:
- in the programme design environment
  (CR – Content Re-contextualization)
- in the teaching and facilitating environment
  (PR – Pedagogic Re-contextualization)
- in the workplace environment
  (WR- Workplace Re-contextualization)
- within the learners themselves
  (LR – Learner Re-contextualization)

PKTW in the programme design environment (CR)

- The process by which 'codified' knowledge is selected and recast for particular learners, as part of programme design

- In professional vocational education it entails the selection and organisation of knowledge for the demands of professional and vocational practice

PKTW in the teaching and facilitating environment (PR)

- Disciplinary knowledge is combined with practice-based knowledge and local company knowledge.

- PR takes place as decisions are made about organisation into learning activities, options, modules, for the purposes of teaching and learning.

- These decisions are never technical matters; they are influenced heavily by practitioners' assumptions about what constitutes good learning experiences and worthwhile outcomes

PKTW in the workplace environment (WR)

- Workplace recontextualization takes place through the workplace practices and activities that generate and support knowledge development.

- And through mentorship, coaching and other arrangements enabling learning through workplace environments.

- These practices are fundamental to learners beginning to vary and modify existing workplace activities; or working with experienced others to change them.

PKTW : what the learner makes of these processes (LR)

- What learners make of these processes varies according to personal characteristics, group/cohort and scope for action.

- LR takes place through strategies the learners themselves use to bring together different types of knowledge and experience – this sometimes involves learners in creation of new knowledge, insights, activities.

- LR is critical to the development of a professional and/or vocational identity.

Using the framework

- Programmes, practices and previous research findings can be analysed (and re-analyzed) according to these re-contextualization processes

- With the aim of maximising the linkages between work-based and subject-based knowledge

- And identifying ways of 'putting knowledge to work'
to the benefit of students, employers
and providers.

Forging Chains of Re-contextualisation

- How can 'chains of re-contextualisation' be (better) forged…
- In ways that meet the expectations and requirements of learners (employees), employers, professional bodies, providers?

Illustrating 'chains of recontextualisation'

With Reference to FD/B.Eng (Hons) in Aircraft Engineering (KLM UK Engineering with Kingston University)/
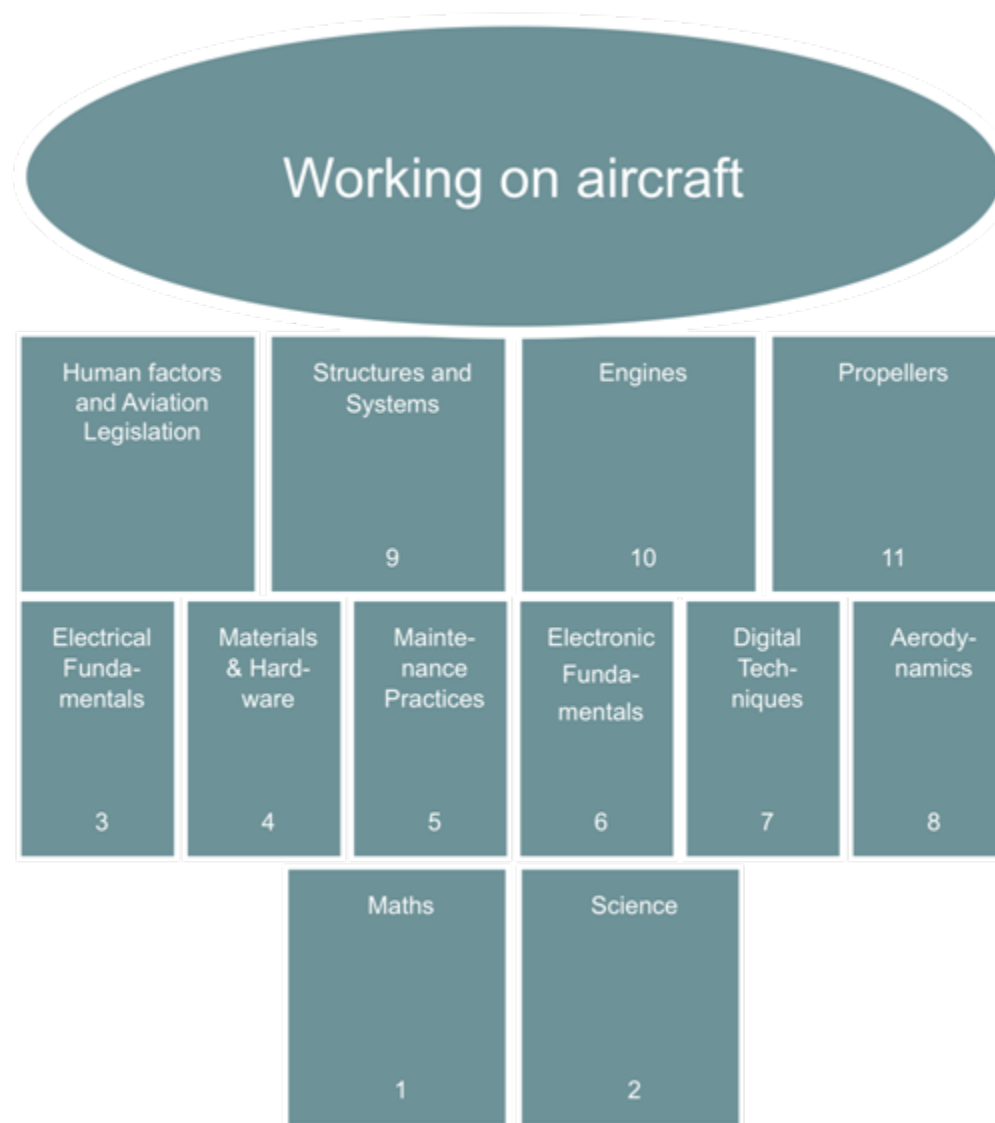
Trainee Programme/ Honours Degree Entry Programme (Commerzbank with the European College of Business and Management)

Aircraft Engineering

Shape of the FD programme:

(Honours -1 yr ft or 2 yr pt - follows)

Working on aircraft

Human factors and Aviation Legislation	Structures and Systems	Engines	Propellers
	9	10	11

Electrical Funda-mentals	Materials & Hard-ware	Mainte-nance Practices	Electronic Funda-mentals	Digital Tech-niques	Aerody-namics
3	4	5	6	7	8

Maths	Science
1	2

PKtW in the programme design environment (CR) allowed us to learn more about the subject knowledge in the programme:

Physics and Maths → Engineering

Branches of Engineering e.g. Aerospace = further selections from Engineering for specialised purposes

Law → Aviation Legislation module

Social Psychology → Human Psychology → Human Factors module

'Gradual release' as promoting a chain of recontextualisation

Gradual release in the design of the programme

- sequencing of modules to build and integrate knowledge

+

- orienting the programme to the operational environment

Gradual release: orientation to the operational environment

Two dimensions: time + predictability

- Strengthen and develop knowledge through extended time and exposure with familiar equipment
- Make mistakes in a controlled environment, closely supervised
- Move from predictable to more unpredictable tasks
- Feedback tailored to workplace and academic criteria
- To the point where operating under time and (un)predictability pressures of the operational environment.

Gradual release: inside the operational environment

- Key people occupying boundary roles

- Shadowing

- Mating-up

- Peer support

- Planning incremental responsibilities

- Debriefing that focuses on developing confidence in putting knowledge to work

- A role for the industry educator….

Honours Degree Entry Programme with company training scheme (Banking):
Shape of the programme

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

PKtW in the programme design environment (CR): the subject knowledge in the programme

- Law and Economics → Business (Finance)

  +

- Sector knowledge

Modules can be sequenced flexibly.

Final 'Honours' year.

Assessment as promoting a chain of recontextualisation

- Work-based knowledge from job(s) in bank
- Subject-based and sector-wide knowledge from college programme

- Facilitation by 'industry educators'

- Assessment brings them together

Assessment: support from both sides

- Bank – duty to train, supported access to company resources, industry educators…

- College – design of assessment specifications…

- Learners motivated to be responsible for recontextualisation

- Recontextualisation link at senior level

Putting Knowledge to Work:
Framework

Disciplinary knowledge

CR   CR

Content of learning programme or curriculum
PR
Teaching, learning and assessment strategies

Mediation of Knowledge & skill

WR

Work knowledge

LR

Learners' prior knowledge

Learner

Learners' prior experience

Using the concept of recontextualisation allows us to:

- explain ways in which all forms of K tied to context (settings where things are done)
- identify what actions assist people to move K from context to context
- identify how K changes as it is used differently in different social practices (ways of doing things) & contexts
- identify how new K changes people, social practices and contexts
- identify who and what supports recontextualisation process

Recontextualisation: revealing the cross-cutting (but hidden) issues

Recontextualisation sheds light on mediated relationships between content, process & enabling factors

'Multi-faceted partnerships' - critical to:
- selection & combination of Ks

'Gradual release' - critical to:
- iterative movement between theory & practice, experienced other & learner

'Enacting new knowledge' - critical to:
- using practice as the source of individual & organisational development

Recontextualisation: revealing the cross-cutting (but hidden) issues (continued)

'Utilising company resources' - critical to:

- using general principles to understand & identify ways to improve work practice

'Diagnosing company problems and solutions' - critical to:

- authenticity & value of work-integrated programmes for all parties

'Industry educators' - critical to:

- providing a bridging & linking role between all four phases of recontextualisation.

Recontextualisation: revealing the cross-cutting (but hidden) issues (continued)

'Dual accreditation' - critical to:

- **Achieving a critical mass of compatibility for all stakeholders**

Putting Knowledge to Work –further information

- Full findings (Karen Evans, David Guile, Judy Harris) can be found on the conference wiki and obtained from the

- WLE Centre www.wlecentre.ac.uk

- Exemplars, cross-cutting themes and guidance notes available on CD Rom

- Research briefing RB60 available on the ESRC TLRP website tlrp.org.uk