

**Sabine McKinnon**

**Senior Lecturer in Academic Development  
GCU LEAD (Centre for Learning Enhancement and Academic  
Development)**



## **Work-Related Learning: a Matter of Principle(s)?**

**University of Aberdeen  
3 December 2015**



**University for the Common Good**

# Overview

1. The employability debate
2. The Real WoRLD Project at Glasgow Caledonian University
3. Why use 'principles'?
4. The Real WoRLD pilot study
5. Research findings
6. What are the challenges?

# The employability debate



DLHE data

Rankings  
and KPI's

Employer  
dictat ?

Graduate  
attributes

Skills and  
training in  
HE ?

# The policy background

## “Skills for Scotland: A Lifelong Learning Strategy”

(Scottish Government, August 2007 , p.48)

Universities need to ...

- provide high quality, relevant learning opportunities that have value in the workplace
- emphasise and prioritise *employability as a key outcome* from learning
- work closely with business to develop courses that will lead to individuals having the knowledge and skills that meet both business need and individual aspirations

# “Skills for Scotland: Accelerating the Recovery and Increasing Sustainable Economic Growth”

(Scottish Government, October 2010, p. 42)



“ We look to the SFC to ensure ... a **step change**

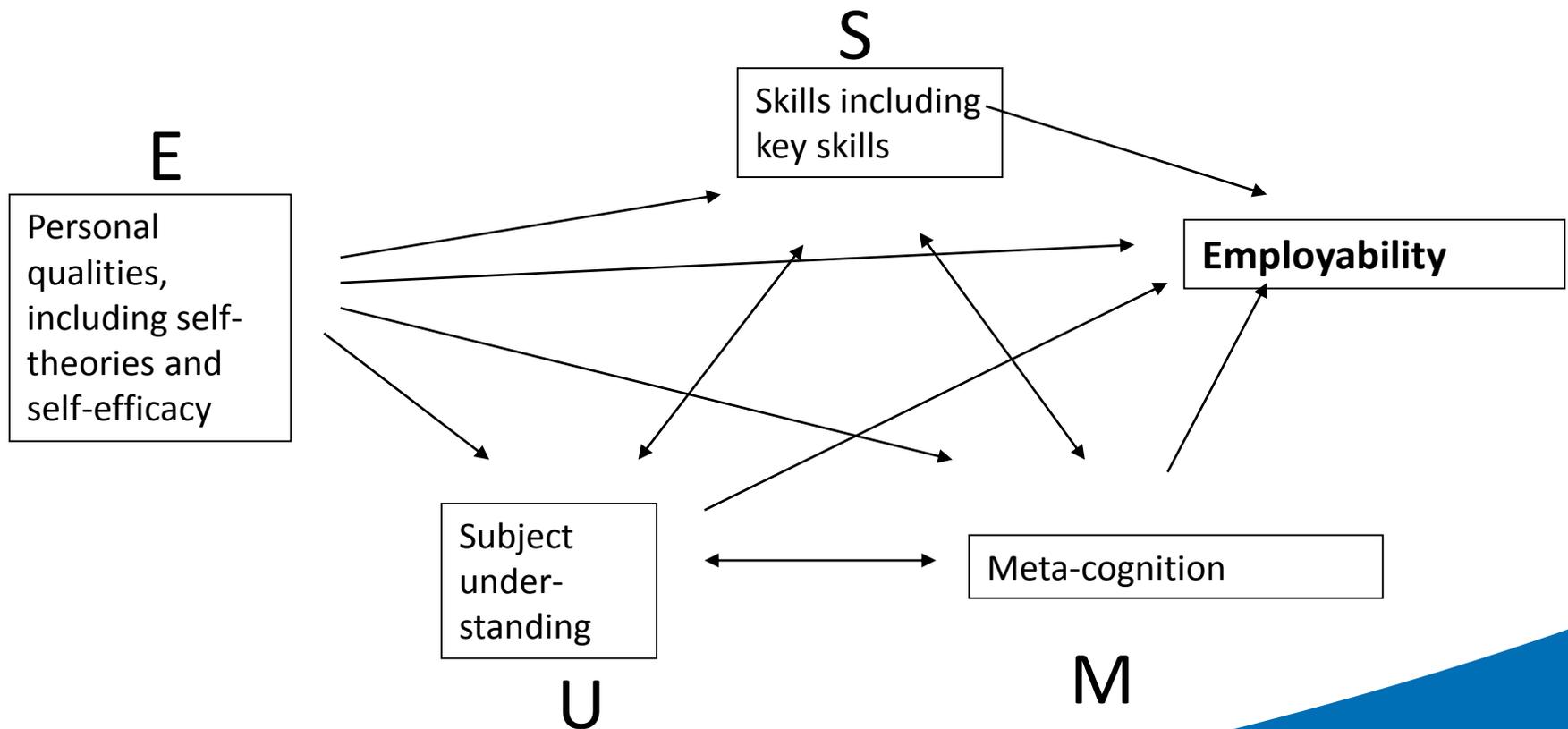
... in the delivery of learning and teaching to best enable the effective application of skills in the workplace”

## What is employability?

“ A modern, competitive economy needs workers who possess *skills, knowledge* and *attitudes* they can take to any work situation and have the ability and willingness to *continually adapt* and prosper in a changing world.”  
(CBI, Future Fit, 2009)

“Employability is not just about getting a job .... **It is about learning** and the emphasis is less on ‘employ’ and more on ‘ability’. In essence, the emphasis is on developing critical, reflective abilities with a view to empowering and enhancing the learner.” (Harvey, 2003)

# The USEM employability model (Knight and Yorke, 2005, p.8)

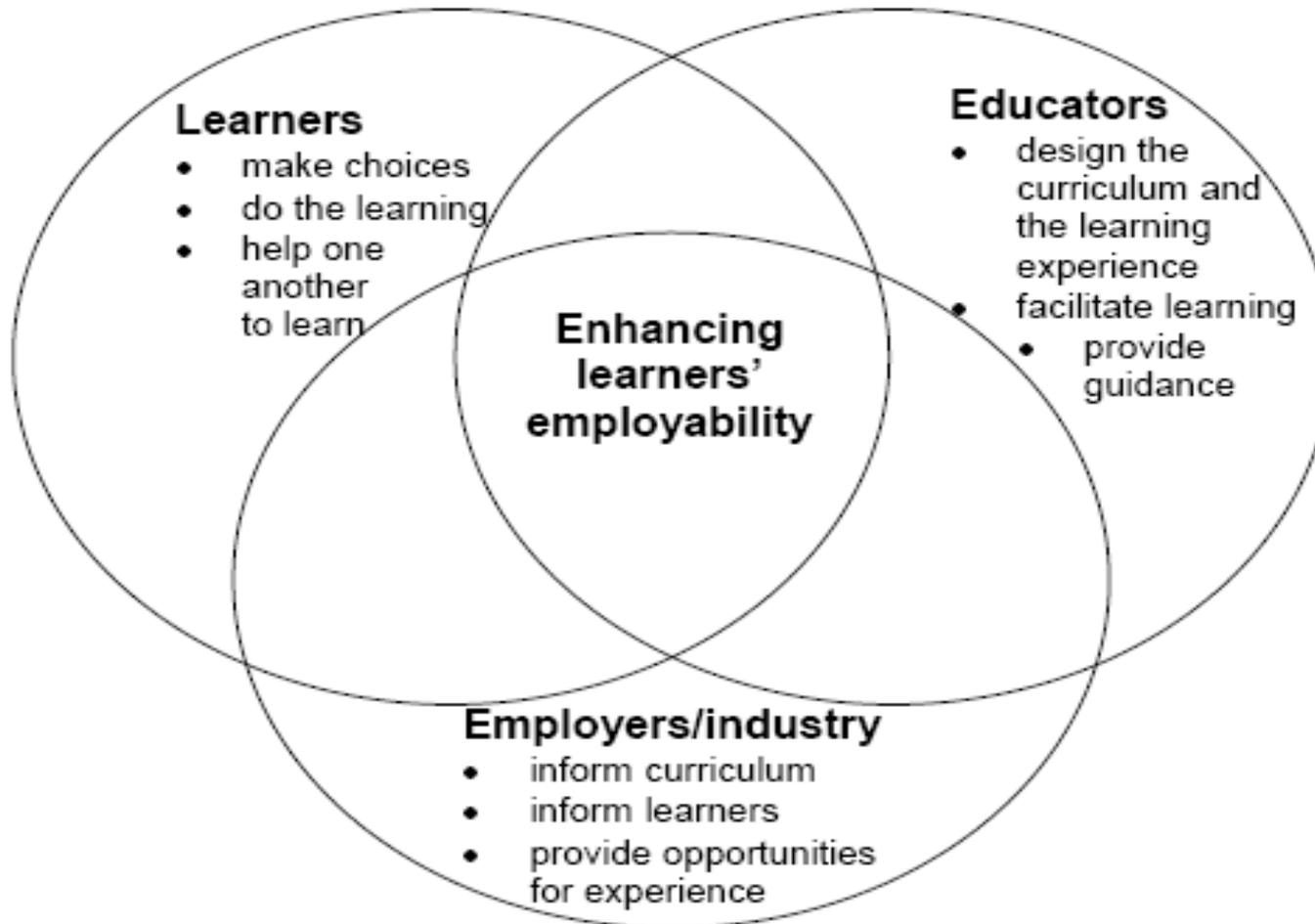


# The 'Big Seven' employability skills

(Adapted from: CBI and UUK, 2009)

1. Self-management
2. Team working
3. Business and customer awareness
4. Problem solving and critical thinking
5. Communication and literacy
6. Application of numeracy and information technology
7. Entrepreneurship/enterprise

## A shared responsibility (SFC, 2004, p. 23)



How can students learn employability skills while studying their subject at university?

Work-related learning in the taught curriculum

# The problem with definitions

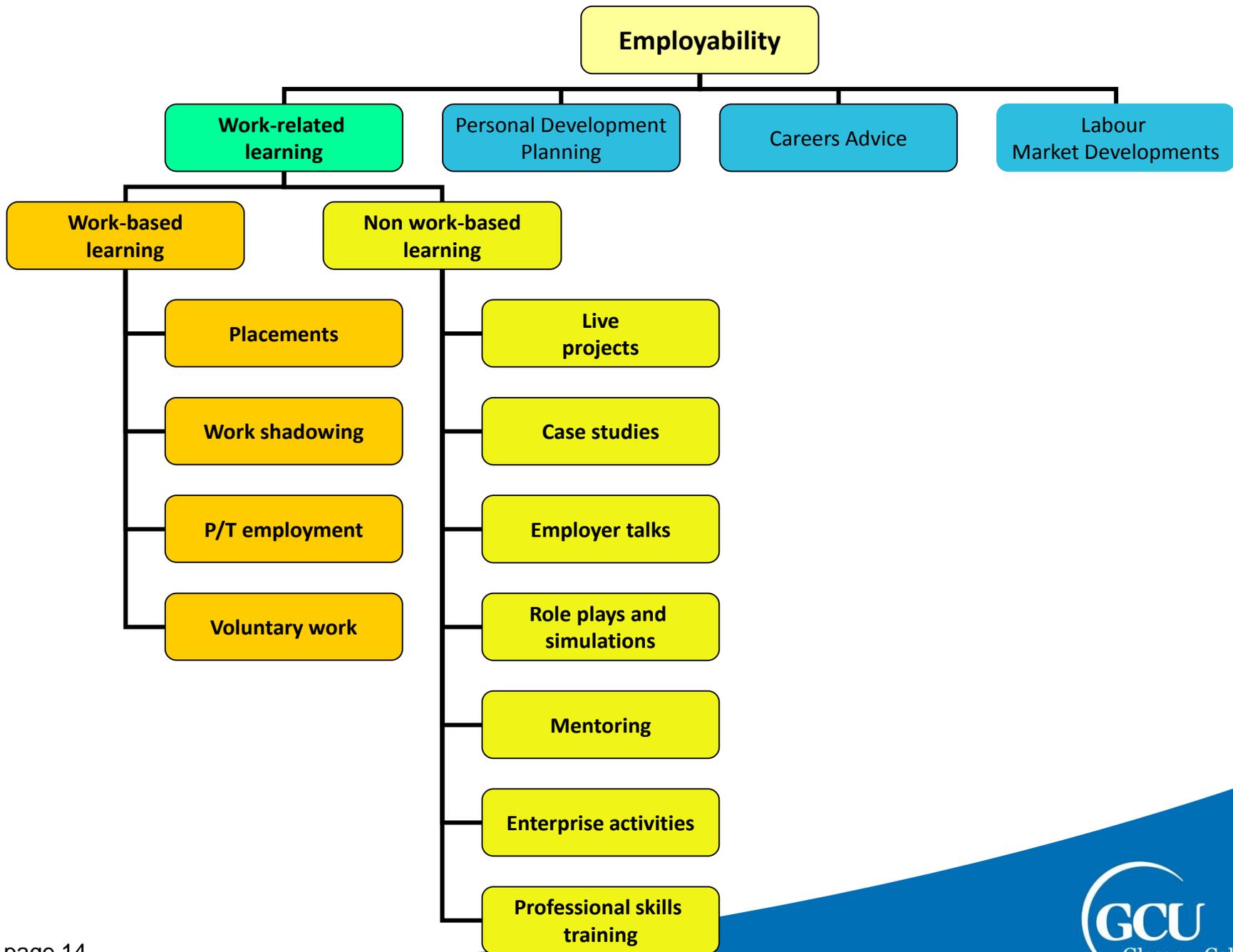
- work-based learning?
- workplace learning?
- work-focused learning?
- work-integrated learning?
- work-experience?
- experiential learning?



# What is work related learning?

“Work-related learning encompasses the **higher-order attributes, skills and understandings** students gain throughout the course of their degree, from a broad range of activities in, or related to, the world of work, which will enhance their learning, progress into, adaptability for, and success in, their chosen careers.”

(Aiming University Learning @ Work Project, 2009)



## The Real WoRLD Project at GCU (Realising work-related learning diffusion)

**Aim:** Improve and enhance students' employability skills by embedding work related learning activities across the university

- at institutional level : develop and support a coordinated, sustainable strategy for work related learning
- at programme level: encourage implementation of work-related learning activities in the subject specific curriculum
- at pedagogic level: develop innovative approaches to teaching, learning and assessment

## Real WoRLD scoping study

- 59 staff interviewed (49 academics from all schools, 10 support staff)
- 7 focus groups with 37 students from all schools

### Results

- confusion over terminology
- many examples of good practice
- provision is uneven and can be improved
- need for shared understanding and joined-up thinking

## Key barriers to embedding work-related learning

- Scepticism amongst academics questioning the value of work-related learning
- Lack of agreed understanding of key terms amongst staff and students
- Lack of universally agreed criteria for benchmarking the quality of work-related learning activities
- No explicit baseline → principles of work-related learning

## Why use principles?

- ❑ All learning and teaching activities are based on principles.
- ❑ A principle is “a relationship that is always true...regardless of programme or practice” (Merrill, 2002, p.43)
- ❑ Principles can provide guidance and benchmarks in any context.
- ❑ Contextualisation is up to subject specialists.

# Merrill's first principles of instruction (Merrill, 2002)

Learning is promoted when ...

1. learners are engaged in solving real-world problems
2. existing knowledge is activated as a foundation for new knowledge
3. new knowledge is demonstrated to the learner ("*show me*")
4. new knowledge is applied by the learner ("*let me*")
5. new knowledge is integrated into the learner's world ("*watch me*")

# Developing principles of work-related learning

Principles should be

- **simple but not simplistic:** they must not be too onerous to use
- **broad:** cover most major considerations/possible scenarios
- **useful:** lead to action that improves the quality of learning
- **accessible:** represented in a language that is readily understood
- **meaningful** at different levels of sophistication: make sense to researchers and practitioners

(adapted from: Boud and Prosser, 2002, p. 240)

# Real WoRLD's

## Principles of Work-Related Learning

(McKinnon and Margaryan, 2009)

Work-related learning activities should be designed so that they:

1. provide students with learning opportunities to integrate theory and practice
2. achieve learning outcomes that state what students will be able to do in the workplace
3. encourage and support students' interest in a wide variety of careers
4. require students to take an active rather than a passive role in the learning process
5. accommodate cultural diversity

Reflective questions break down the components of each principle.  
(See handout)

# What are authentic activities?

Tasks that “ match as nearly as possible the real world tasks of professionals in practice in a given discipline; problems inherent in the activities are ill-defined and open to multiple interpretations rather than easily solved by the application of existing algorithms” (Reeves et al , 2002)

## Real WoRLD pilots

Subject	Module/ programme	WRL activity
Computing	<i>“Integrated Project “ (year 1)</i>	Student work in teams to produce a website or database based on a practical scenario
Marketing	<i>“Personal Development and Self-Presentation” (year 1)</i>	Client-based group project: students organise fund raising event
Law	<i>“Innocence Project” (year 3)</i>	Students work as professionals with live cases of potentially wrongful convictions
Business	<i>“International Business Strategy “ (year 4)</i>	Student teams are assessed on client based project; employer involvement in assessment
Design	<i>MA Design Practice and Management (PG)</i>	Students work as interns in two assessed placement modules

# Research methodology

## How feasible are the 'principles'?

### Research question:

What are the benefits and challenges of embedding work-related learning in the taught curriculum?

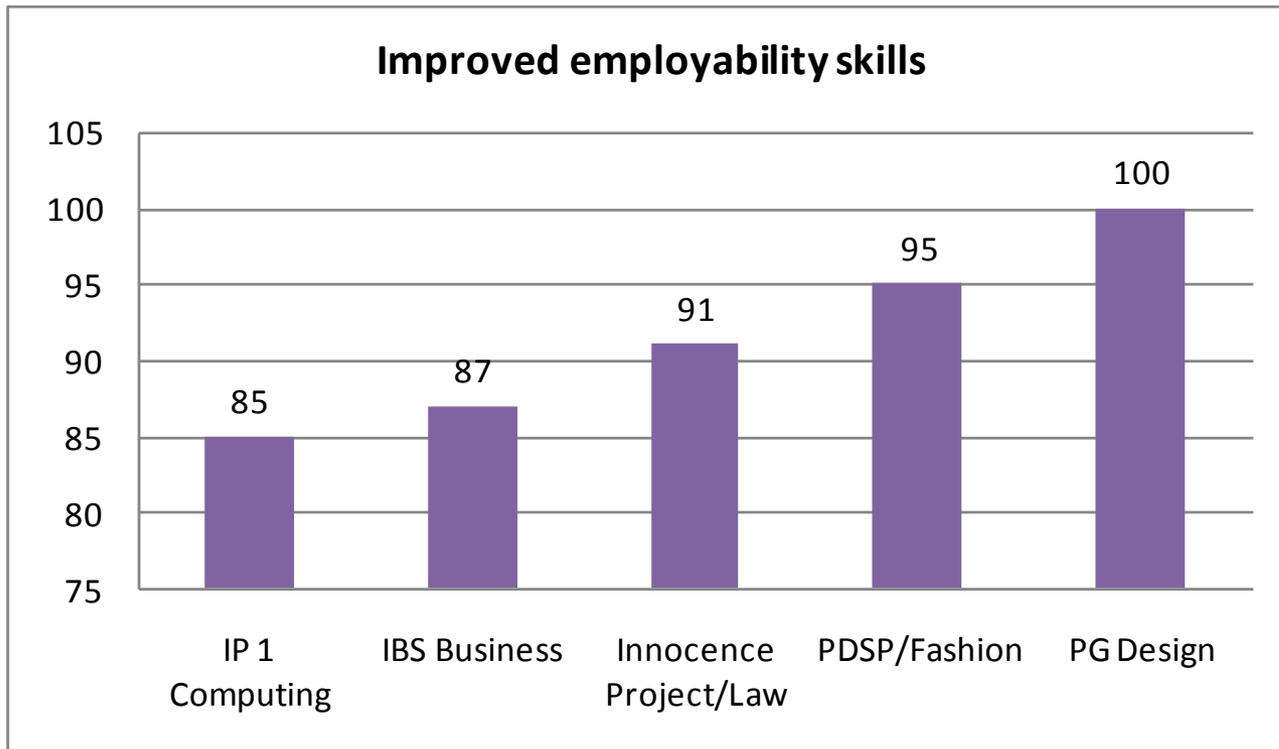
- Two student surveys (pre- and post-) per pilot: 386 responses
- 81 students in 15 focus groups
- Semi-structured interviews with 5 academics and 5 employers

# Self assessment of employability skills in student surveys

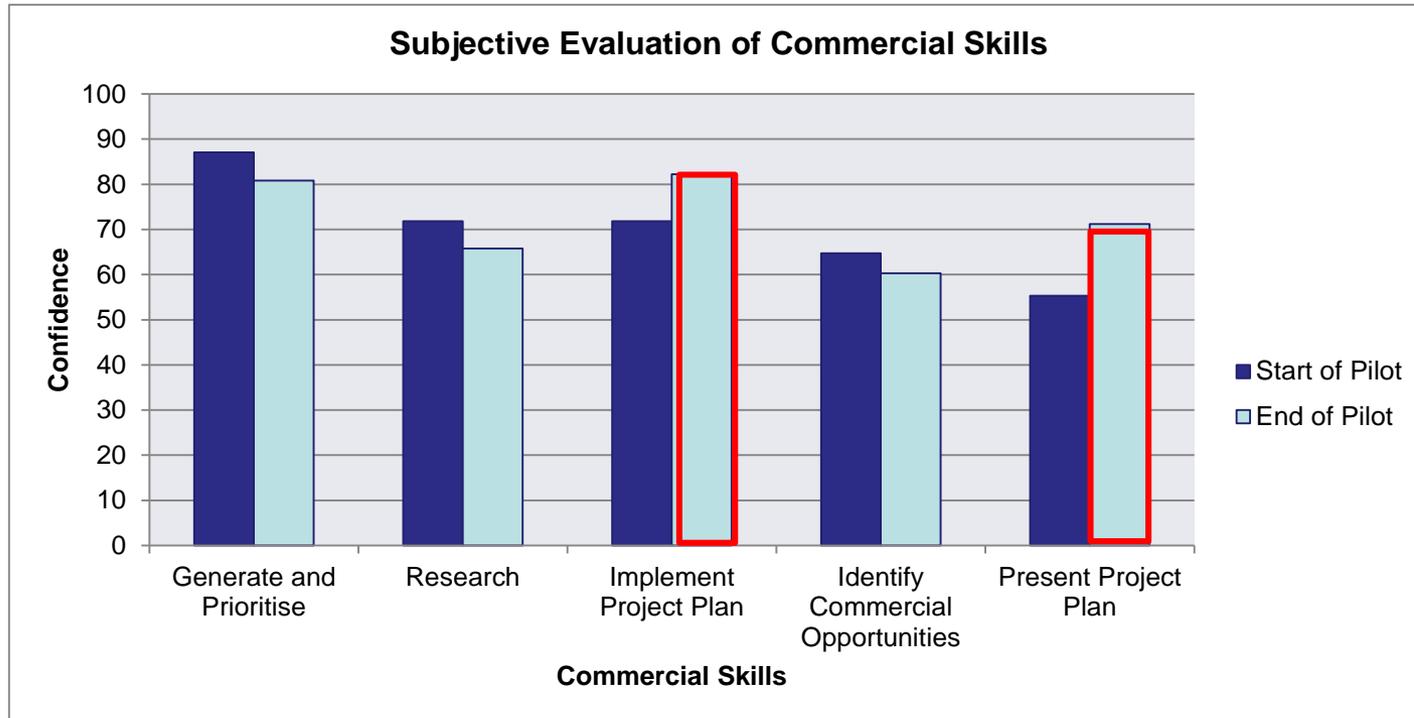
Commercial skills	Identifying commercial opportunities Presenting and implementing project plans ...
Learning skills	Evaluating own strengths and weaknesses Acting on feedback Working without guidance ...
Transferable professional skills	Written and oral communication Formal presentation Time management ...
Team-working skills	Listen to the view of others Acting assertively Take the lead in group discussions ...

## Research findings: the student view

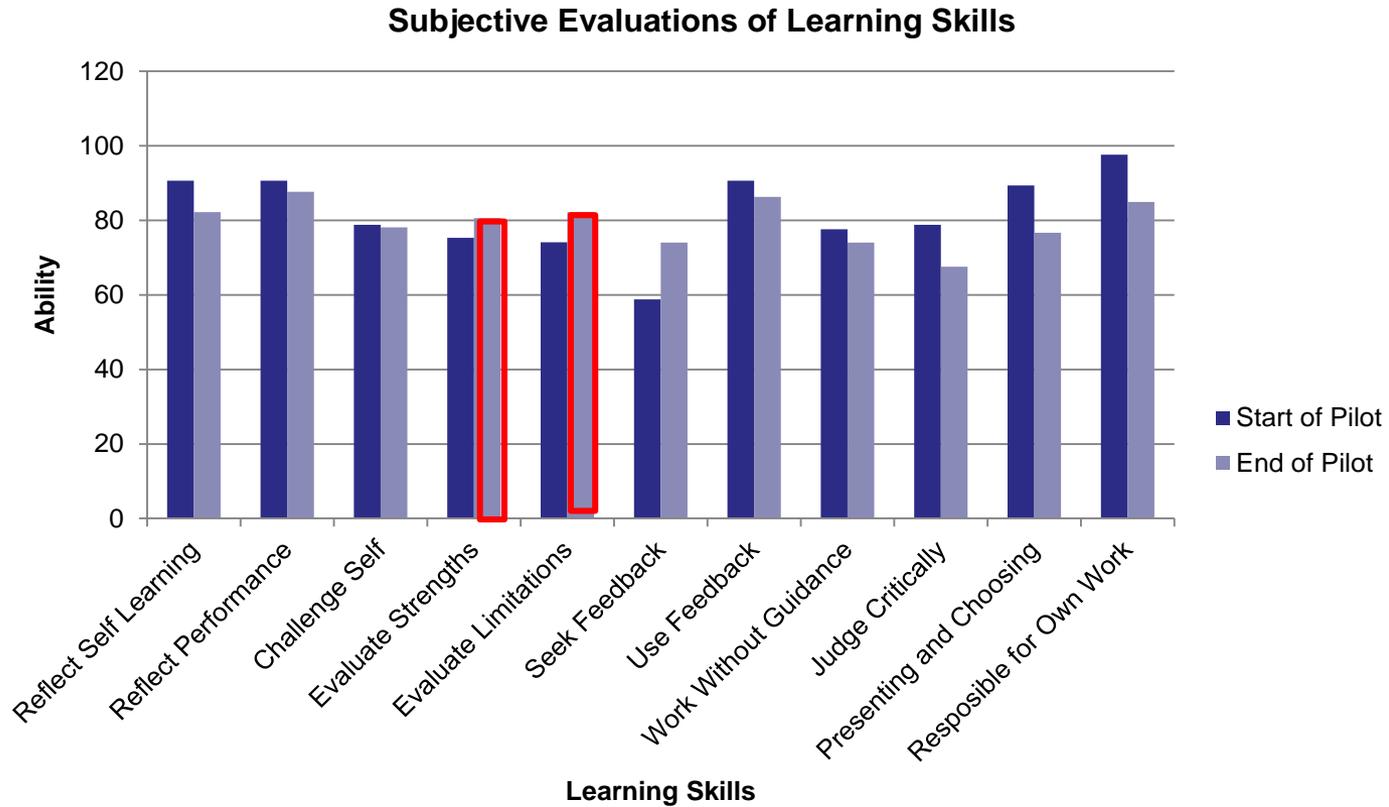
89% of students reported improved employability skills



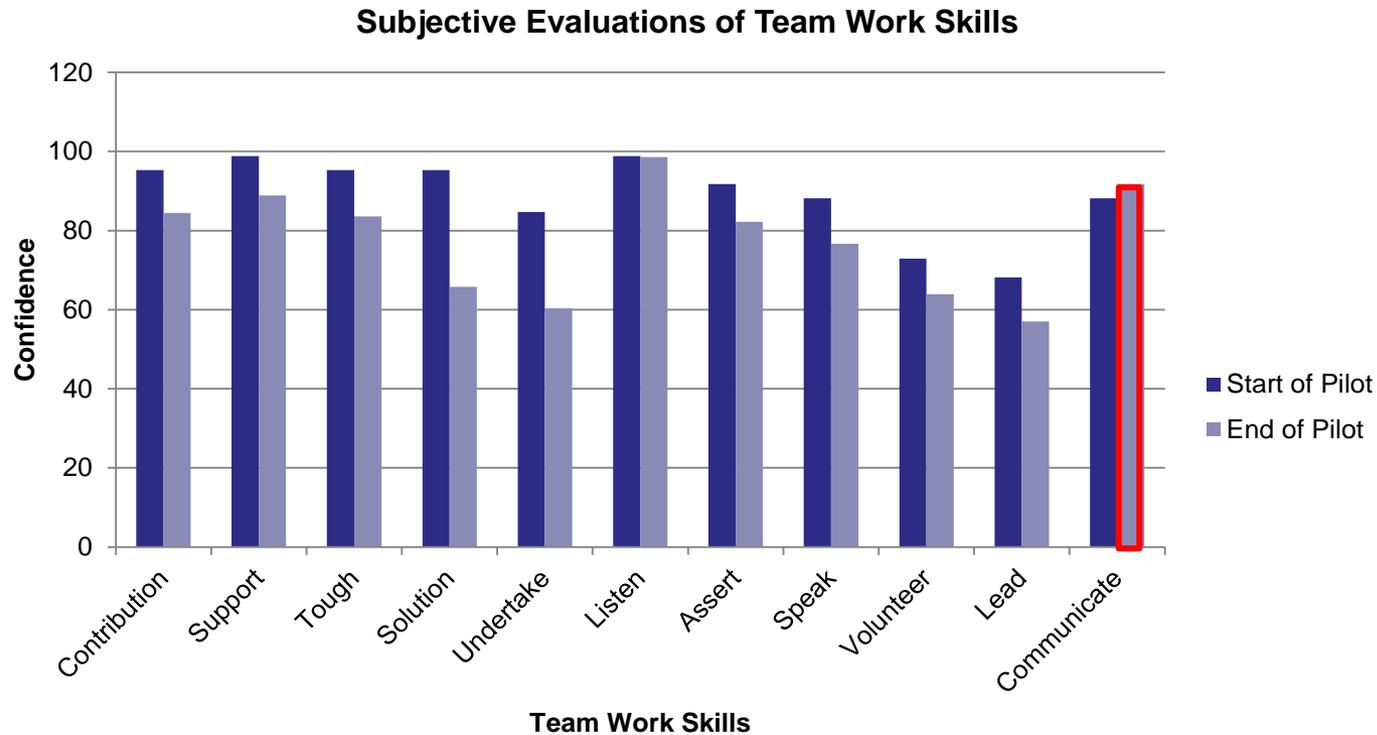
# The case of first year computing students



# Evaluation of learning skills



# Evaluation of team-working skills



# Early awareness of the skills gap can be a starting point for better learning at university

(McKinnon and McCrae, 2012)

*“Well, I think it (the module) sort of prepared the groundwork. Obviously there’s a lot further to go, at least two years to go, but **you’re starting to learn some things that you can’t do**. Like you can’t leave things to the last minute, like you could maybe do in school.”*

*(First year computing student)*

## Improved awareness of the need for independent learning skills

*“ I liked the practical aspect of ‘there is the project, go and do it’. I think that was good ...from the point of view of teaching you independent learning. I think the only way you’re ever going to learn that is by being basically thrown in at the deep end and I particularly enjoyed the independence of being able to just go and do rather than just being told...just being spoon fed.” (First year computing student)*

*“... in other modules you kind of get taught and you get tested. In this one you were just given a wee tiny bit of stuff and thrown into doing it...you were not actually given the answers if you know what I mean. In other classes you were given the answers somewhere and you just had to learn them. In this one you were not really given that.” (First year computing student)*

## The academic view

There is some **resistance from students** to engage with real world tasks that put them out of their comfort zones.

*“ ... they need that, the ability to be pro-active, the ability to get off their chair, the ability to think, do something, take a knock, get back up, do it again, learn from that and move on.”*

*“...from the students I have seen, some of them have got it naturally, too many of them don't have it and are scared of it, bored by it, nervous of it...”*

## The academic view

- ❑ WRL provides a “window to the real world”
- ❑ Enhances relationship with employers and alumni
- ❑ Enhances role as a teacher

*“I am on the journey with them. So I can’t nudge them in the right direction, as I would with a simulated exercise.”*

- ❑ Rewarding to see students overcome anxiety and succeed

*“Actually this sounds very Hollywood but it’s always good to see people develop, it’s great to see them flourish and really move on...it’s brilliant.”*

# What are the challenges?

- Work-related learning approach is still the odd one out

*“...at first we were all a bit unsure of where we heading and what we were doing ... when you start looking into the information we do think this is overwhelming, how are we ever going to get the right information, know where to look and **it’s completely different from anything we’ve ever done before.**” (4<sup>th</sup> year Business student)*

*“...it’s a little disturbing because by the time they come to the wind tunnel I would have expected them to have been tested a bit... and so students get a little anxious, they don’t feel at all comfortable...” (Academic)*

# What are the challenges?

- Higher anxiety levels amongst students
- Lack of consistency in defining academic standards and expectations
- Lack of departmental support
- Added responsibility for academics because the stakes are higher

*“It’s got additional pressures because it reflects on the university, it reflects on the department, it reflects on the school, it reflects on me as an academic; there is more at stake.”*

## Conclusion from pilots

- ❑ Employability is a learning and teaching issue.
- ❑ Students need to be exposed to real-life “messy” problems that do not have one textbook-answer from first year onwards.
- ❑ They should expect to be challenged and not be surprised or stressed when they are.
- ❑ WRL should be spread evenly across programmes.

## Work-related learning - a matter of principle?

“Colleges and higher education institutions should not address employability as an ‘add-on’, but rather as part of the quality of the learning experience.”

(SFC, 2004, p. 26)

There is no conflict between work-related learning and good academic learning.

What makes a student employable is what makes a good graduate.

Good quality academic teaching has enabled students to be confident communicators and critical problem-solvers for decades.

➔ Work-related learning makes it **explicit** and **visible** to students, staff and employers.

"I never teach my pupils, I only provide the conditions in which they can learn."



## References

- Boud, D. and Prosser, M. (2002) Appraising new technologies for learning: a framework for development, *Education Media International*, pp. 237-245
- CBI and Universities UK (2009) *Future Fit: Preparing Graduates for the World of Work*, London: CBI
- Harvey, L. (2003) *Transitions from Higher Education to Work: A briefing paper prepared by Lee Harvey (Centre for Research and Evaluation, Sheffield Hallam University), with advice from ESECT and LTSN Generic Centre colleagues*
- Knight, P.T. and Yorke, M. (2003) *Assessment, Learning and Employability*, Maidenhead  
Open University Press and McGraw Hill Education
- McKinnon, S. and Margaryan, A. (2009) *Principles of work-related learning*, Glasgow Caledonian University.  
<http://www.gcu.ac.uk/media/gcalwebv2/academy/content/realworld/Principlesofwrl180909.pdf>
- McKinnon, S. and McCrae, J. (2012) Closing the gap: preparing computing students for employment through embedding work-related learning in the taught curriculum, *Industry and Higher Education*, Vol 26, No.4, August 2012, pp. 317-322
- McKinnon, S. and Wood, B. (2012) *Learning for the real world: preparing postgraduate design students for employment through embedding work-related learning in the curriculum*, Proceedings of the International Conference on Engineering and Product Design Education (EPDE 2012), 6 & 7 September 2012, Artesis University College, Antwerp, Belgium
- Merrill, D. (2002) First principles of instruction. *Educational Technology Research and Development*, 50(3), 43-59
- Reeves, T., Herrington, J and Oliver, R. (2002) Authentic activities and on-line learning, HERDSA, pp 562-567  
[http://researchrepository.murdoch.edu.au/7034/1/authentic\\_activities\\_online\\_HERDSA\\_2002.pdf](http://researchrepository.murdoch.edu.au/7034/1/authentic_activities_online_HERDSA_2002.pdf)
- Scottish Funding Councils for Further and Higher Education (2004) *Learning to Work: Enhancing Employability and Enterprise in Scottish Further and Higher Education*, SFC: Edinburgh