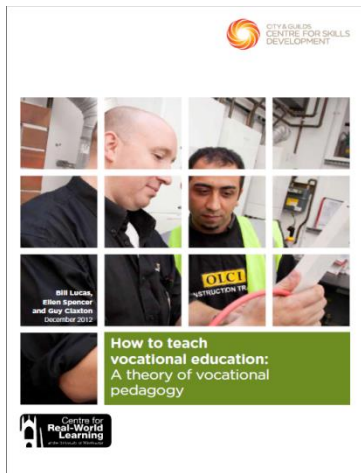


Vocational Pedagogy Remaking Apprenticeship and craftsmanship for HE

Prof Bill Lucas



Why 'remaking'?



tes further

Is it time to tear up apprenticeships?

'Remake' programme to put learning back at its core, expert urges

GARREN EVANS

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POLITICIANS HAVE lost sight of the importance of learning in apprenticeships and are focusing too much on "sound bites" about boosting numbers, according to the author of a major report on work-based learning.

Bill Lucas, professor of learning at the University of Winchester, told TES that there was a "fundamental need" to be more ambitious about the future of the apprenticeship programme.

Professor Lucas was speaking after the publication of a report he co-authored, which calls for apprenticeships in England to be "remade" and learning put back at their core. *Remaking Apprenticeships*, published by City & Guilds and backed by skills organisations including the 157 Group of colleges and the Association of Employment and Learning Providers, argues that reforms must go further if apprenticeships are to reach their full potential.

"It's quite extraordinary when you think that apprenticeships are about learning and yet there is no mention of the word 'learning' in any government documents," Professor Lucas told TES. "They focus on systems and standards and they have forgotten about learning."

Apprenticeships are proving a major political issue in the run-up to the general election with pledges from all three



THE TRAGEDY OF THE COMMONS

[Some thoughts about vocational pedagogy]

‘The original meaning of [the 3Rs] was completely different in Regency times, at the beginning of the 19th century. The three Rs were reading, wroughting and arithmetic - in other words, literacy, making things and numeracy...And then in the era of Mr Gradgrind and the Great Exhibition of the 1850s, the wroughting got dropped in favour of writing.’

Sir Christopher Frayling,
Rector of the Royal College of Arts,
interviewed in *The Guardian* 29/6/04

Vocational education is under theorised



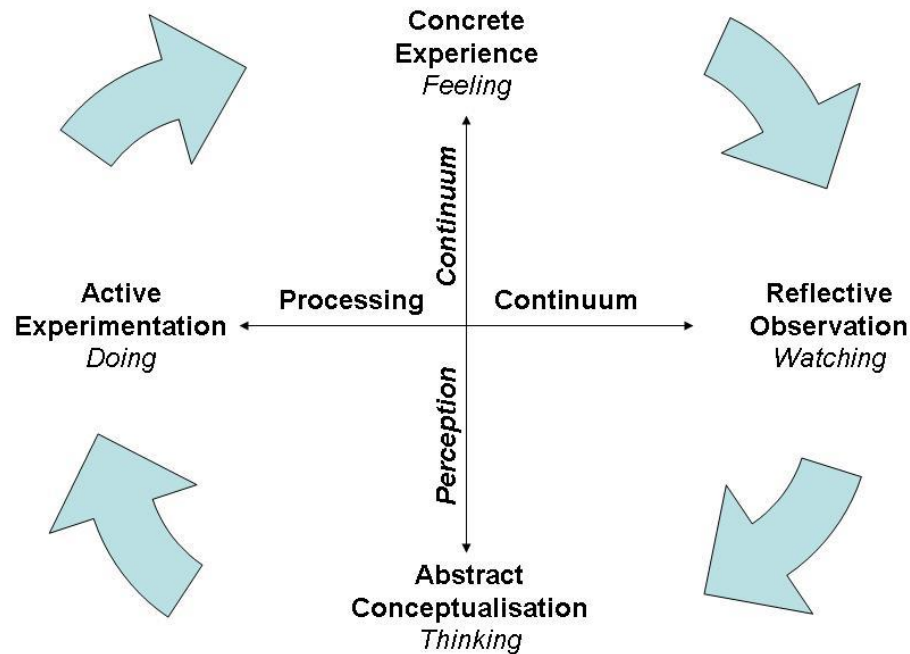
+



without \$



And such theories as we have
beg many more questions..



David Kolb (1984) *Experiential Learning*,
Englewood Cliffs, NJ: Prentice Hall

Problem-based learning may be an exception....



A general shift from 'manipulative' to 'cognitive'

'TVET curricula have been in transition from its *Industrial Age* mix of 50% theory and 50% practice to one that is 80% theory and 20% practical, paralleling the transition from the Industrial to the Information Age.'

Rupert Maclean and Ada Lai (2011). The future of technical and vocational education and training: Global challenges and possibilities. *International Journal of Training Research*, 9 (1-2), 2-15

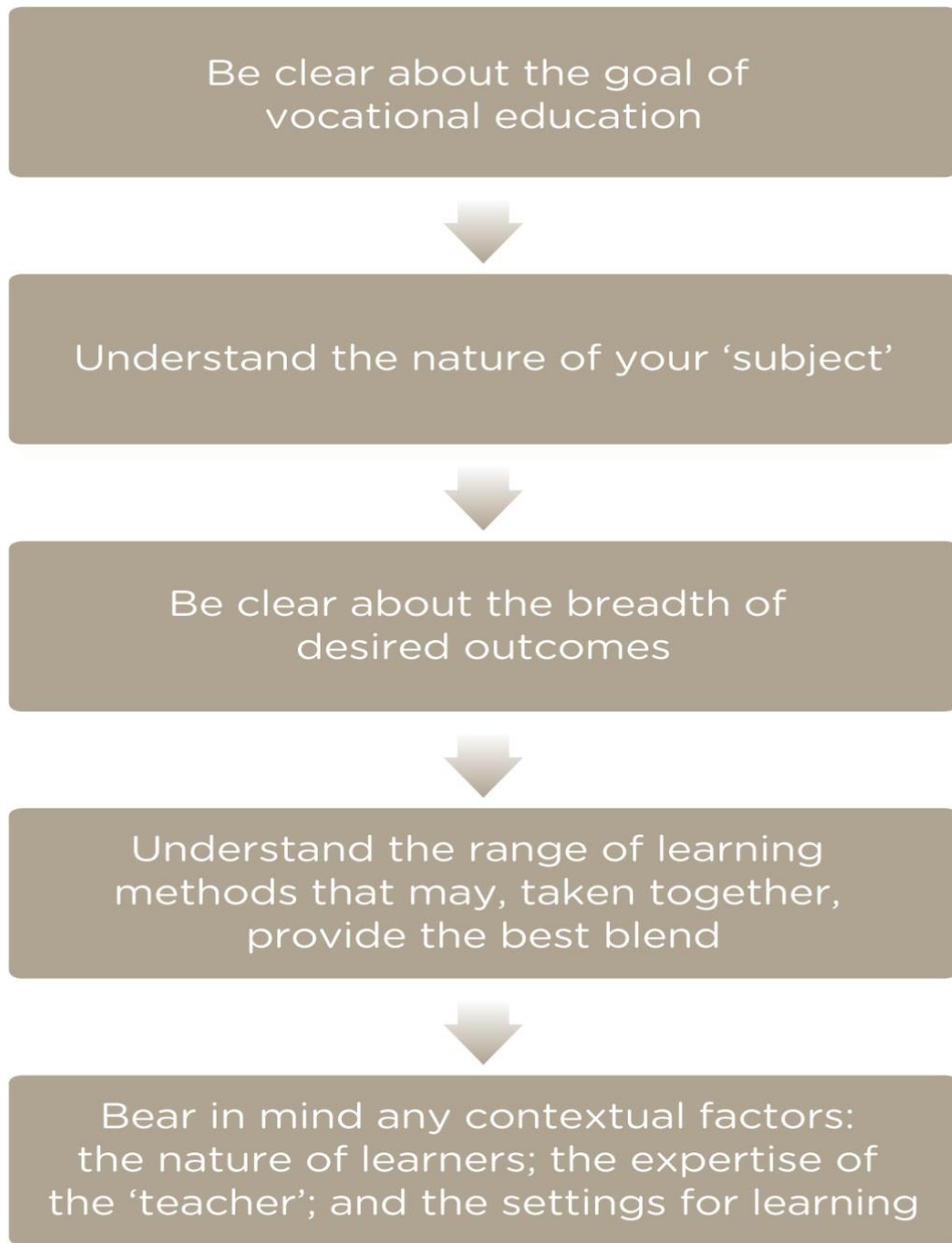
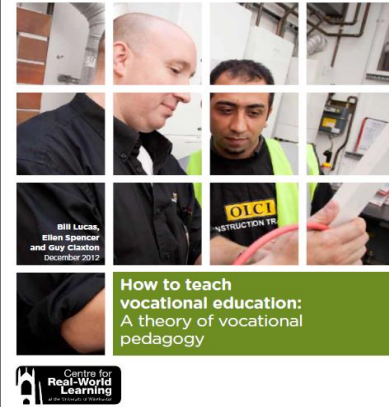


Figure 7 The process of developing a vocational pedagogy



Vocational pedagogy is different

‘The Commission therefore agrees with Lucas, Spencer and Claxton about the importance of codifying, recognising and valuing the sophisticated practice of vocational pedagogy.’

CAVTL

Commission on Adult Vocational Teaching and Learning

Doing things

not

Talking or writing about doing things



Be clear about the goal of vocational education



Understand the nature of your 'subject'



Be clear about the breadth of desired outcomes

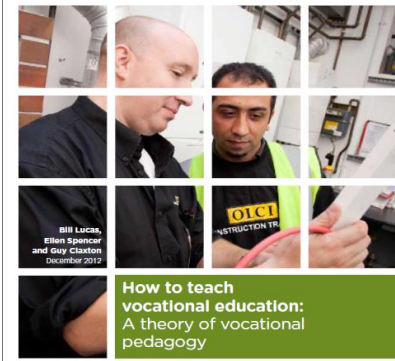


Understand the range of learning methods that may, taken together, provide the best blend



Bear in mind any contextual factors: the nature of learners; the expertise of the 'teacher'; and the settings for learning

Figure 7 The process of developing a vocational pedagogy



PHYSICAL MATERIALS

Plumbing

Construction management

Electrical installation

Civil engineering

Hairdressing

Creative arts and graphic design

Sport science

Performing arts

Information technology

Aromatherapy

Computer games development

Childcare

Counselling

Marketing

Journalism

Accountancy

PEOPLE

SYMBOLS



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Figure 7 The process of developing a vocational pedagogy

- 1 Routine expertise (being skilful).
- 2 Resourcefulness (stopping to think to deal with the non-routine).
- 3 Functional literacies (communication, and the functional skills of literacy, numeracy, and ICT).
- 4 Craftmanship (vocational sensibility; aspiration to do a good job; pride in a job well done).
- 5 Business-like attitudes (commercial or entrepreneurial sense – financial or social).
- 6 Wider skills for growth (for employability and lifelong learning).



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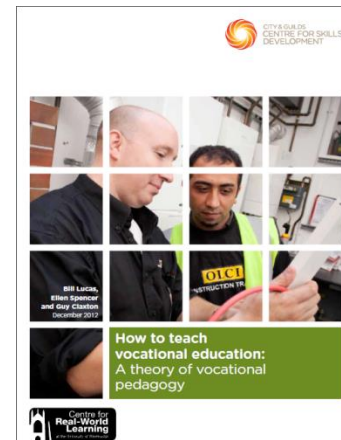


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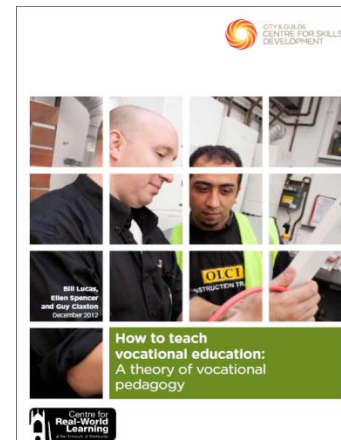
Things that learners do (1)

- Learning by watching
- Learning by imitating
- Learning by practising ('trial and error')
- Learning through feedback
- Learning through conversation
- Learning by teaching and helping
- Learning by real-world problem-solving
- Learning through enquiry
- Learning by thinking critically



Things that learners do (2)

- Learning by listening, transcribing and remembering
- Learning by drafting and sketching
- Learning on the fly
- Learning by reflecting
- Learning by being coached
- Learning by competing
- Learning through virtual environments
- Learning through simulation and role play
- Learning through games



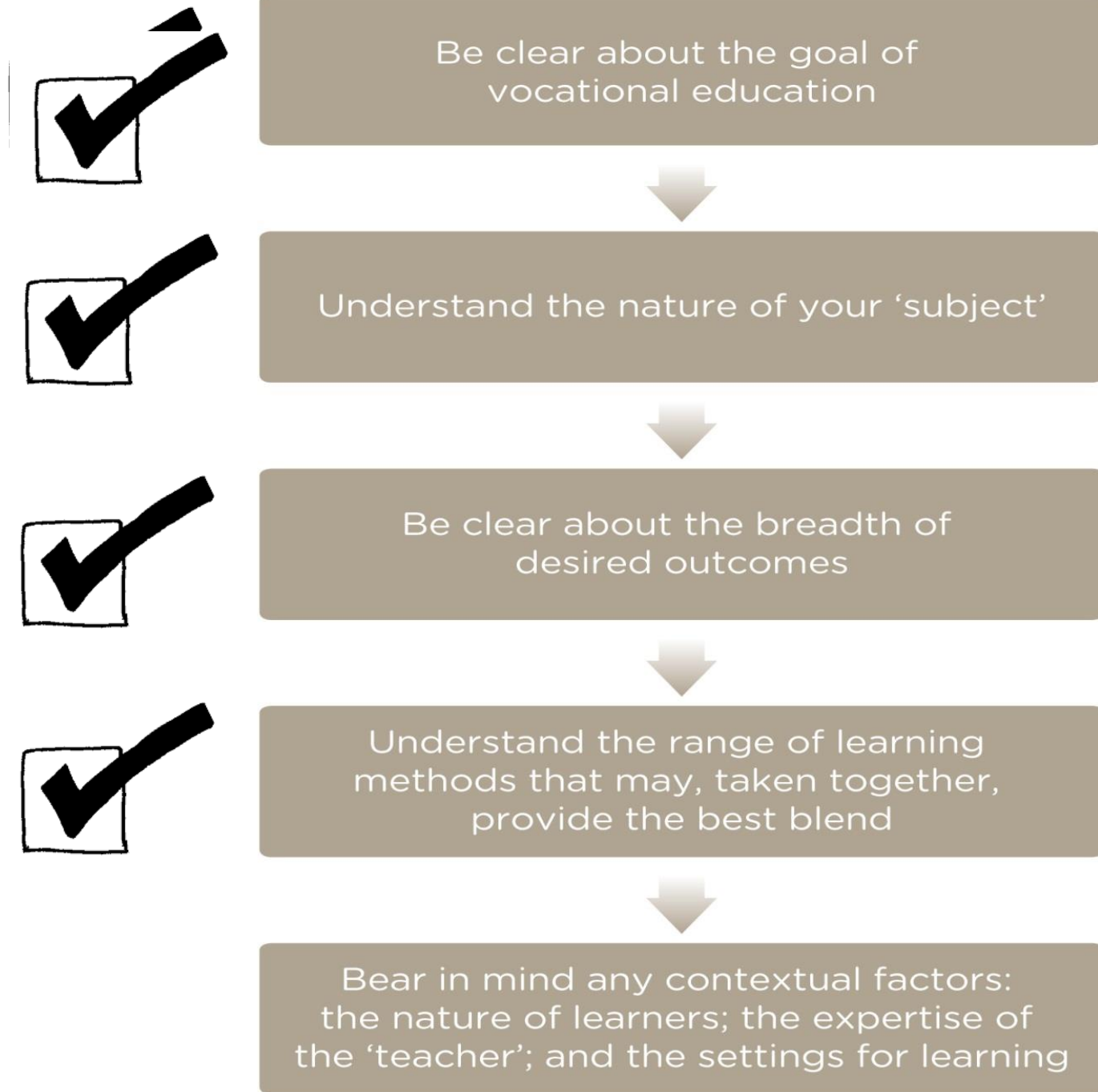
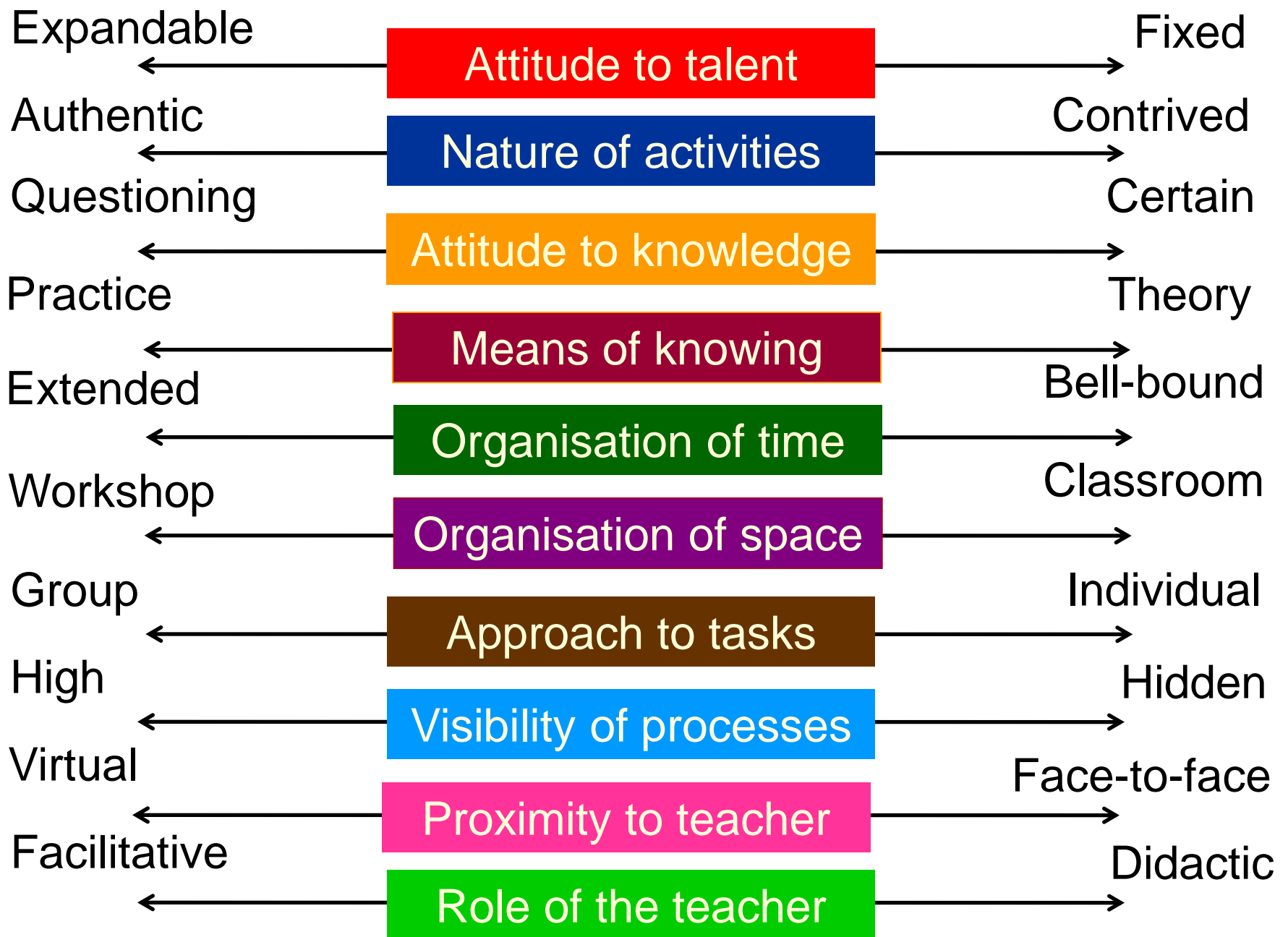


Figure 7 The process of developing a vocational pedagogy

‘[The challenge for vocational teaching and learning professionals is] to build curriculum and assessments that replicate the uncertain, messy, problem-based, people intense, and time limited world of work.’

Nancy Hoffman (2011) *Schooling in the Workplace*.
Cambridge, MA: Harvard Educational Press





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Expanding goals for learning, beyond success in examinations to wider skills for success in the 21st century

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Central to this practice is Action Research as ongoing CPD for teachers to develop positive attributes in learners, preparing individuals to meet the challenges of life and work.

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[Some thoughts about apprenticeship]

Apprenticeships - Desirable Outcomes, Key Features and Learning Methods

SIX DESIRABLE OUTCOMES

- Routine expertise
- Resourcefulness
- Craftsmanship
- Functional literacies
- Business-like attitudes
- Wider skills for growth

THREE KEY FEATURES

- Learning on- and on-the-job
- Learning from and with others
- Visibility of processes

LEARNING METHODS THAT WORK

- Watching
- Imitating
- Listening, transcribing and remembering
- Trial and error, experimentation or discovery
- Deliberate practice
- Drafting and sketching
- Assessment for learning
- Teaching and helping
- Conversation
- Reflecting
- Being coached and mentored
- Real-world problem-solving
- Making
- Individual or collaborative enquiry
- Thinking critically and producing knowledge
- Competing
- Simulation and role play
- Games
- In virtual environments
- Seamlessly blending virtual with face to face
- On the fly



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Characteristics, values and habits that last a lifetime

The system should encourage young people to be	This means helping to instil the following attributes
Determined	Grit, resilience, tenacity
	Self-control
	Curiosity
Optimistic	Enthusiasm and zest
	Gratitude
	Confidence and ambition
	Creativity
Emotionally intelligent	Humility
	Respect and good manners
	Sensitivity to global concerns

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First steps
A new approach for our schools



ambition [noun] a desire and determination to achieve success.



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FIRST STEPS: A NEW
APPROACH FOR OUR
SCHOOLS
END OF YEAR REPORT



SIX DESIRABLE OUTCOMES

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- ✓ Resourcefulness
- ✓ Craftsmanship
- ✓ Broader literacies
- ✓ Wider skills

THREE KEY FEATURES

- Learning on- and off-the-job
- Learning from and with others
- Visibility of processes

When?

Which?

Where?
How?

LEARNING METHODS THAT WORK

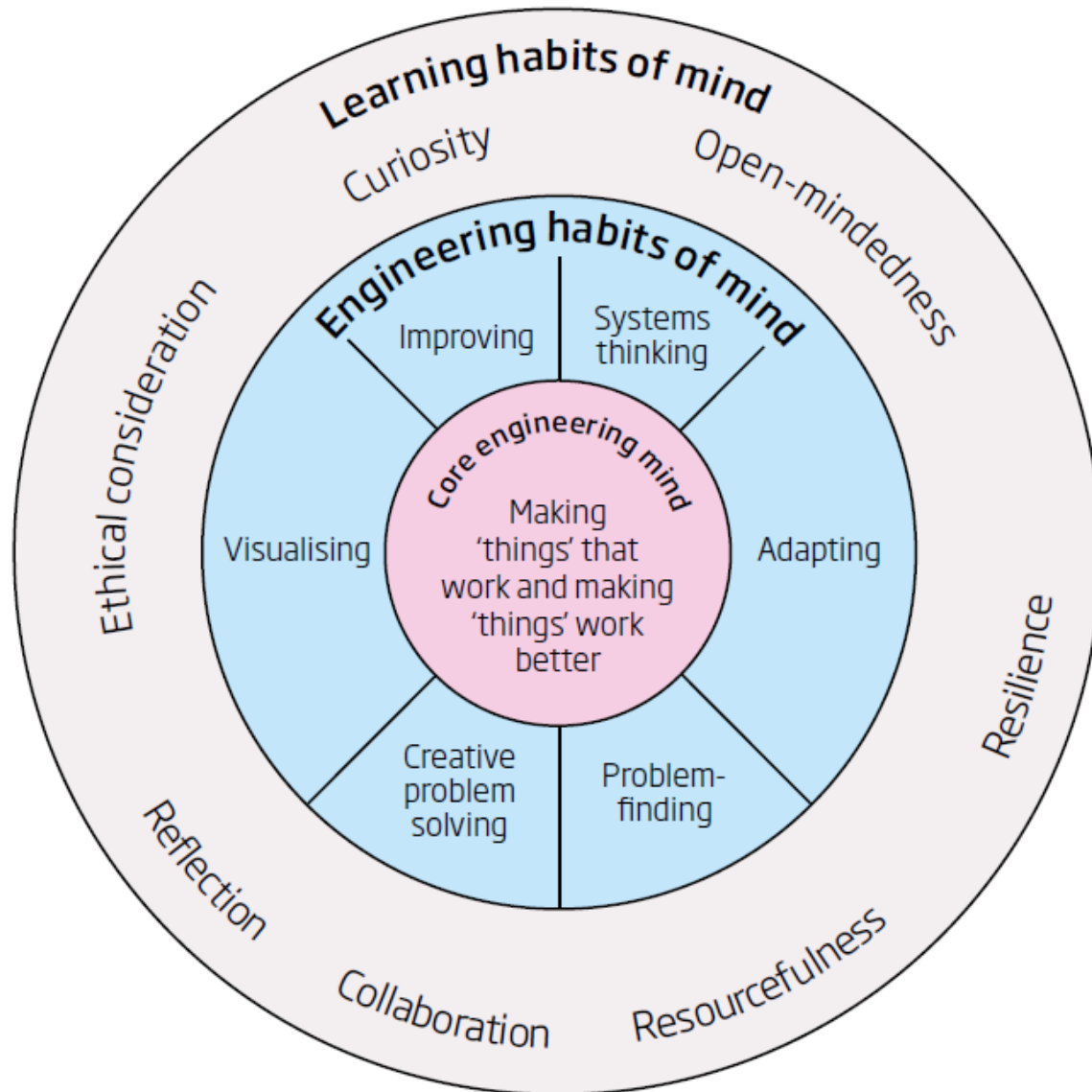
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The idea of 'signature pedagogy' *What might it be for apprenticeships?*



Lee Shulman (2005) Signature pedagogies in the professions. *Daedalus*, 134, 52-59

An example from engineering



[Some thoughts about craftsmanship]

Descartes' Error

‘Every good craftsman conducts a dialogue between concrete practices and thinking; this dialogue evolves into sustained habits, and these habits establish a rhythm between problem-solving and problem-finding.’

Richard Sennett (2008) *The Craftsman*. London:
Penguin Books

Workmanship of Risk

v.

Workmanship of Certainty

David Pye (1995) *The nature and art of workmanship*.
London: The Herbert Press

Our early look at *the* literature suggests that skilled craftspeople do things differently and:

- ✓ are attentive
- ✓ can be self-absorbed
- ✓ notice things more precisely
- ✓ set demanding goals
- ✓ are responsible
- ✓ are reflective, and
- ✓ enjoy giving and receiving feedback.

Craftsmanship

Noun

Excellence

Noun

Workmanship

Noun

Professionalism

Noun



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