CONFIGURING THE RELATIONSHIP BETWEEN KNOWLEDGE AND APPLICATION IN THE DESIGN OF LEARNING PATHWAYS IN COMPETENCE BASED EDUCATION.

Dr. Paul D. Blakeman

Skills for Health

better skills better jobs better health

Action focused (stimuli and response)

Behaviourists

Purposvie or neo behaviourist

Cognitive/critical thinking (insightful)

Gestaltists

The cognitive school.

Not all Competences are the same

- Behavioural
- Functional

Learning Design Principles

Identify service need

Describe need using NOS

Commissioning Specification

Embedded within Quality Monitoring and Enhancement Infrastructure

Design packages of learning

Slot in to Education Pathway Design

Skills for Health

better skills better jobs better health

Why do we need effective learning design pathways?

- For the patient : changes and advances practices for the benefit of all of us when we become patients.
- For the employee: Having confidence in ability and the security of support that he/she will not be asked to do something he/she has little experience to accomplish
- For employer: A work force fit for purpose and practice and the means to identify and addresses skills gaps.
- For the service and Society in general.

By the end of a course the individual will have a balance of:

Occupational Dexterity/ Physical Actions (Psychomotor Skills)

Knowledge and knowledge processing/ Conceptualisation (Cognitive)

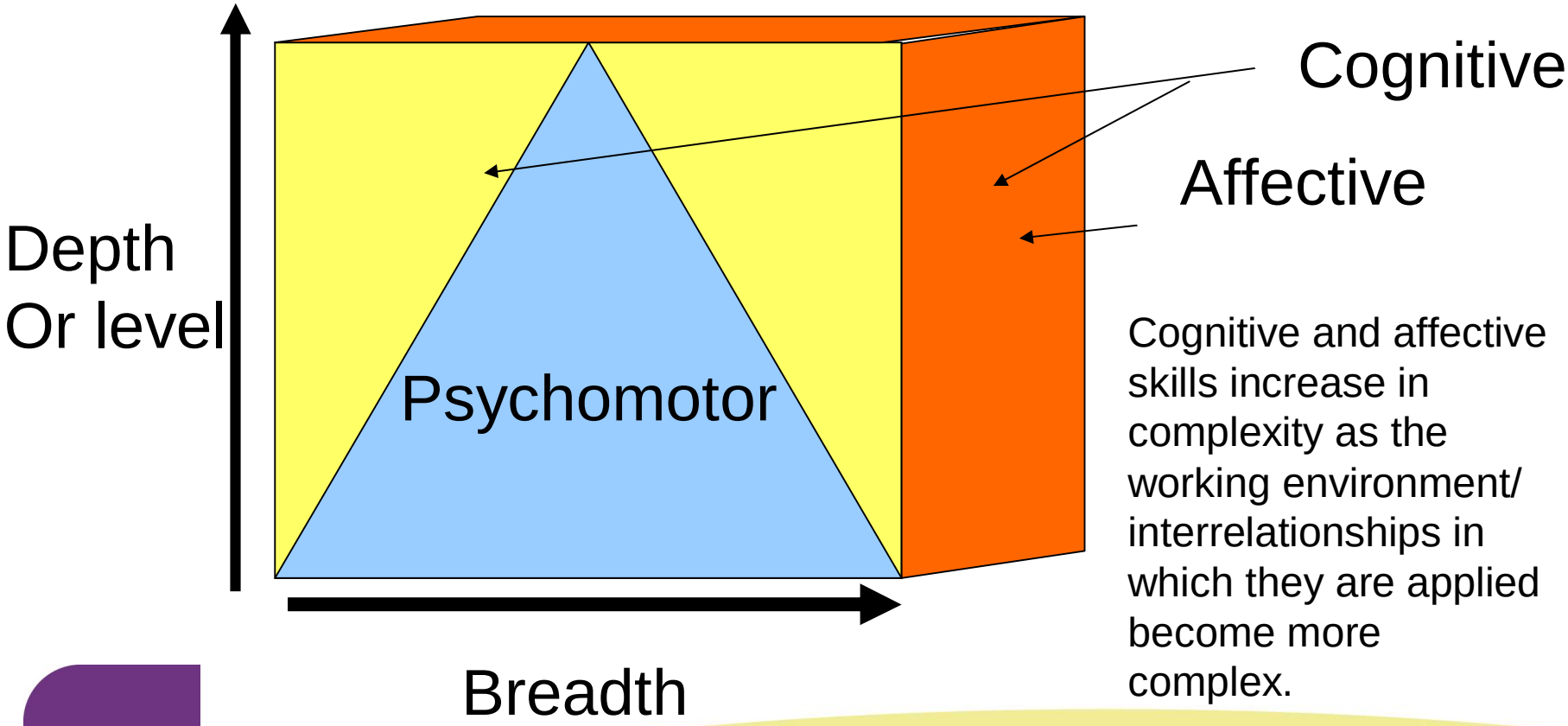
Inter-personal/ Awareness skills (Affective)

The relative balance of amount between these often determines the academic level. While a person can become more adept and practiced at a psychomotor task it can basically remain the same at all levels.

Generally a higher skill is defined by the knowledge processing and working environment (i.e. Cognitive and Affective)

(Based on the domains in Bloom's Taxonomy)

Often seen relative balance within Occupational Competence in respect of level.



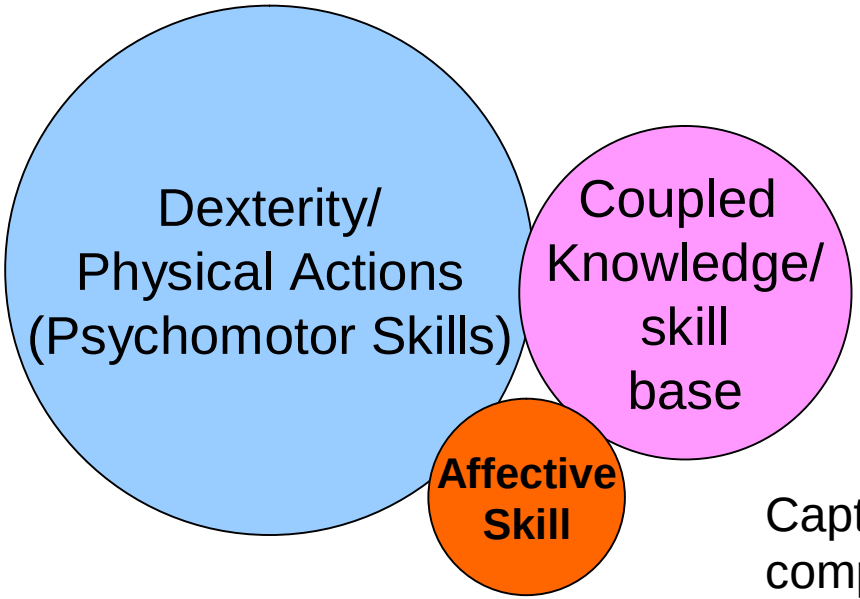
Cognitive and affective skills increase in complexity as the working environment/ interrelationships in which they are applied become more complex.

Application and operationalisation

Skills for Health

better skills better jobs better health

FUNCTION



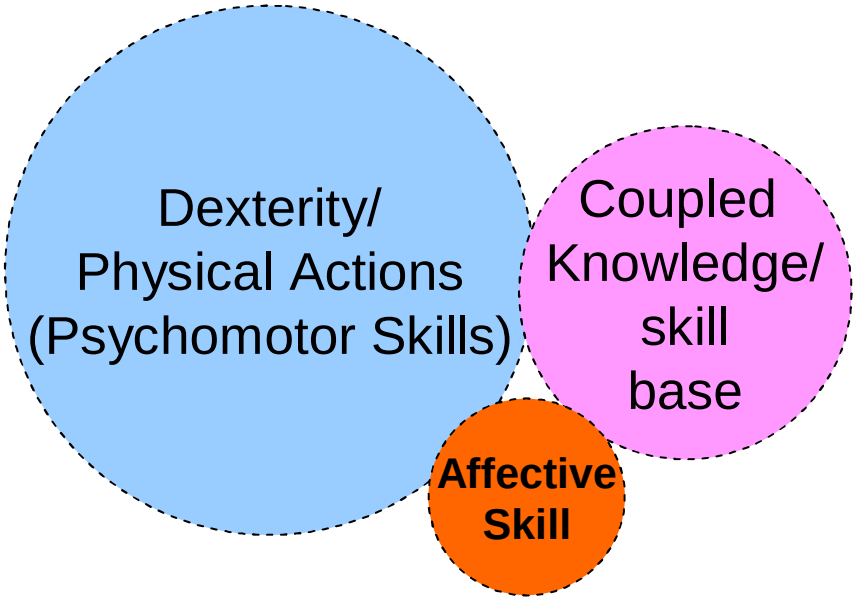
A physical action/task cannot exist in isolation.

There is a closely coupled underpinning knowledge requirement to perform the task

Often, the there is also an inter-personal relationship element also associated with the task

Captured in definition within competence and competence clusters these can often be linked to occupation related tasks but also could be defined as packages of learning

The Boundaries are permeable

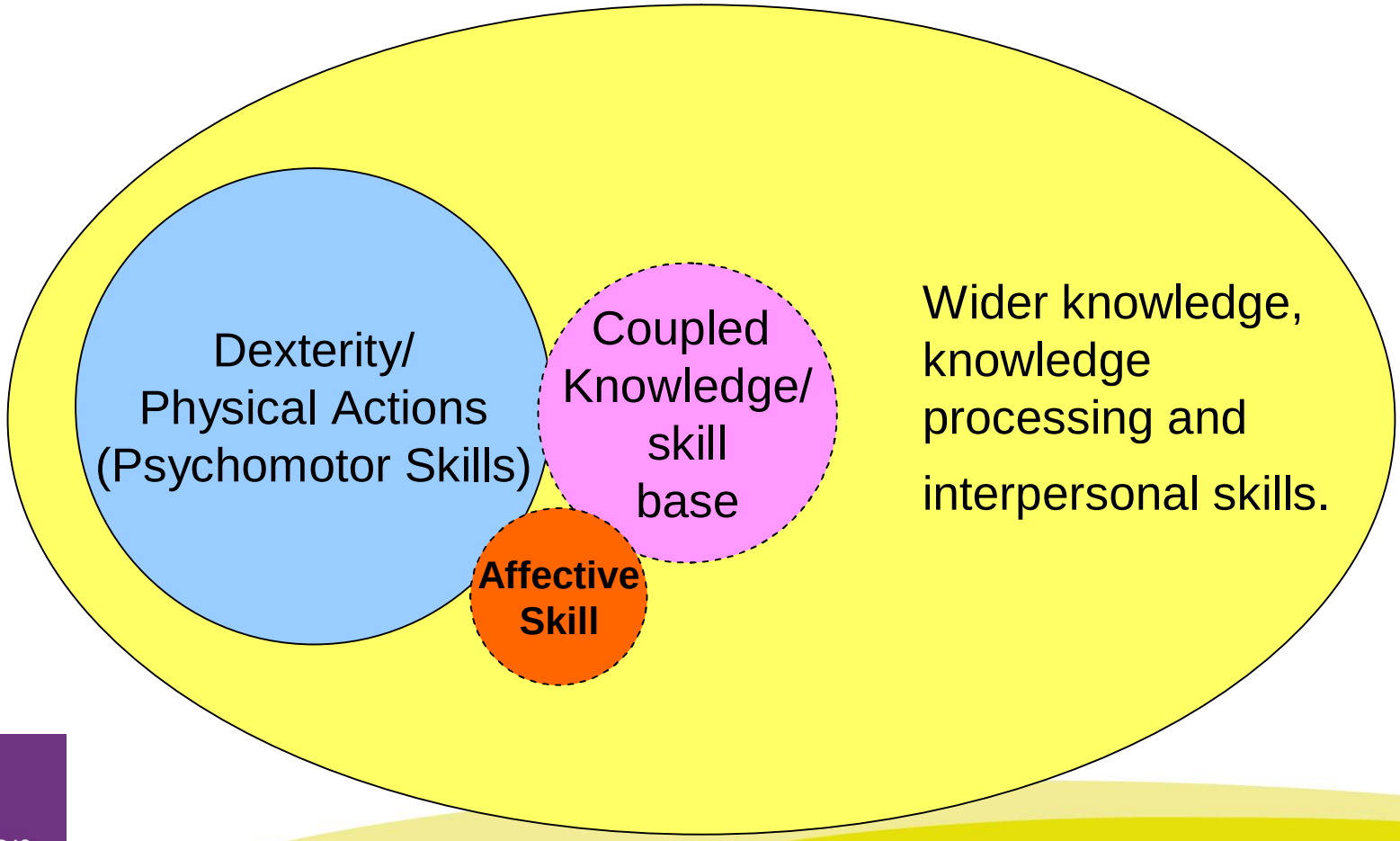


Blooms Taxonomy re-visited

While dated, Bloom's Taxonomy still presents a good example of defining increasingly complex applications of knowledge in six levels:

1. Knowledge
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation

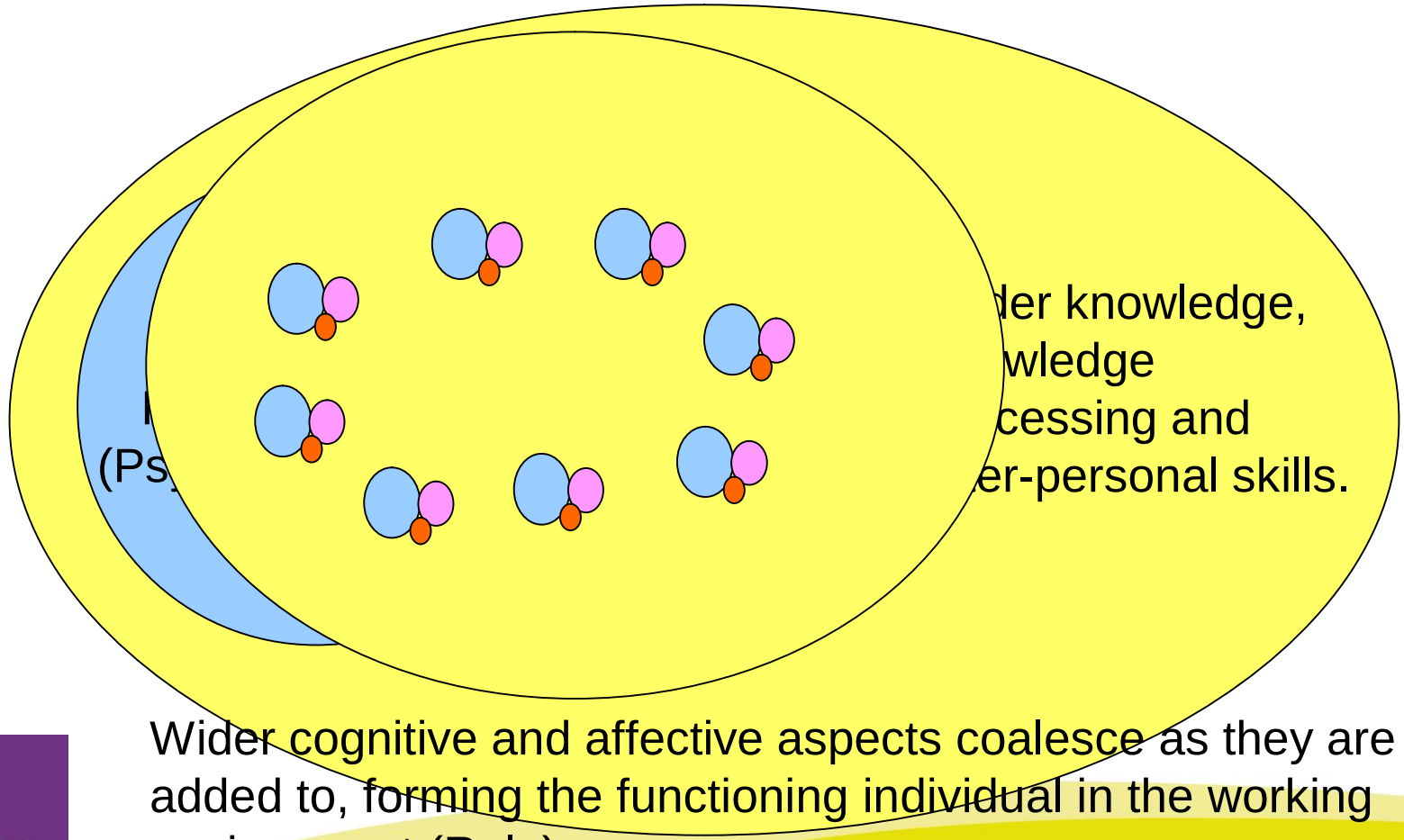
Conceptualising the wider context in building education



Skills for Health

better skills better jobs better health

Conceptualising the wider context in building education

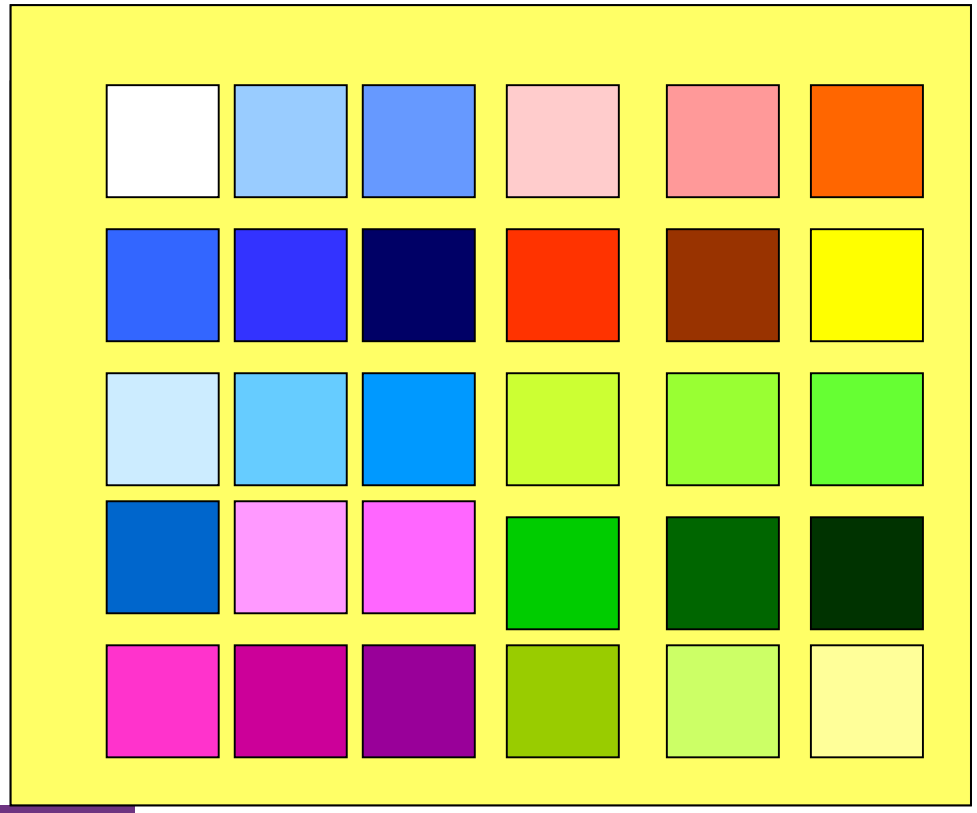


Wider cognitive and affective aspects coalesce as they are added to, forming the functioning individual in the working environment (Role)

Skills for Health

better skills better jobs better health

Dissecting qualification, module/unit and element

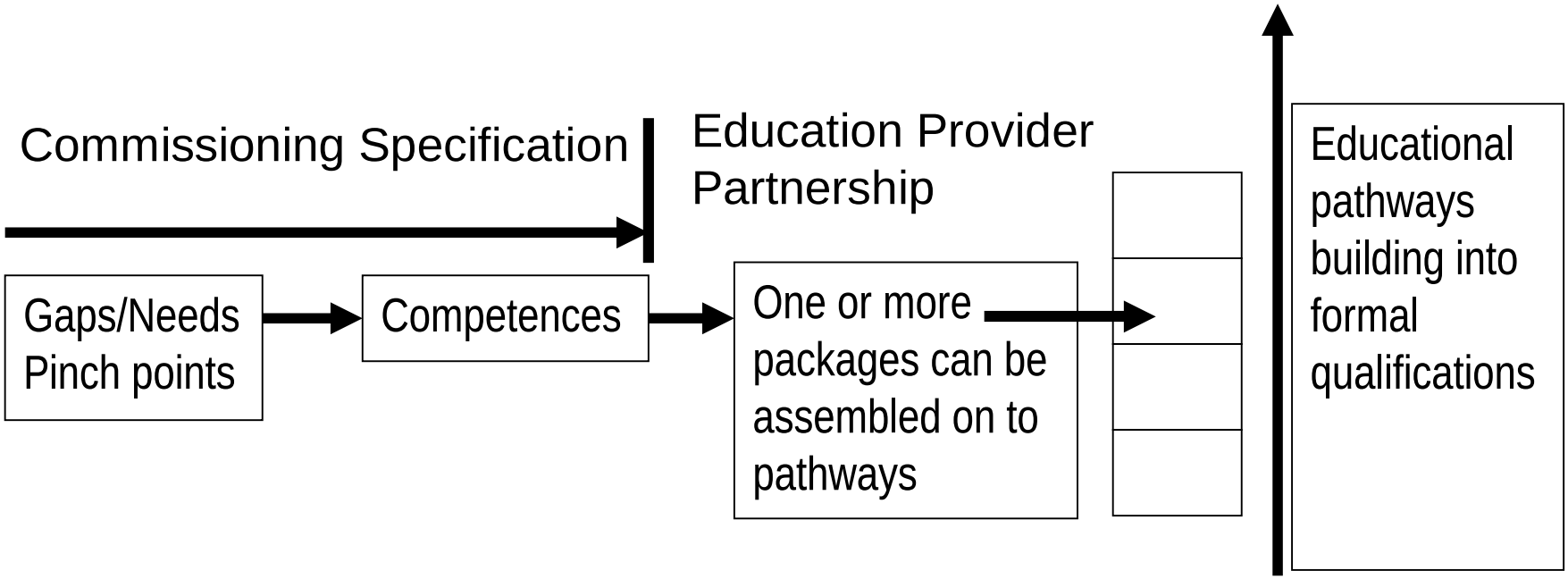


Elements of learning (small packets).

Each of value to the employee and employer covering a competence or cluster of competences to up-skill in a role.

Recognised by transcript (or passport) on the way to full modules or awards.

Educational Pathways



The PROCESS in which employer and educational provider can develop and utilise "packages of learning" each building upon each other that can be flexibly assembled according to need into a learning path to support a role and/or qualification. With no duplication for the student.

Primary assessment

Of patients with cardiac and thoracic disorders

- Manifestations and effects of coronary artery disease / angina
- Electrophysiology disorders
- Valvular and aortic disease
- Presenting symptoms of patients with lung cancer
- Manifestations and effects of COAD

Diagnosing patients

With cardiac and thoracic disorders

- ECG and stress testing
- Coronary angiography
- Biochemical and haematological analysis
- PFT and understanding chest x ray
- Rapid access lung cancer services

Treating patients

With cardiac and thoracic disorders

- PCI and Thrombolysis
- Drug management
- Cardiac surgery
- EP and pacing
- Cardiac rehabilitation

Primary assessment

Of patients with cardiac and thoracic disorders

- Manifestations and effects of coronary artery disease / angina
- Electrophysiology disorders
- Valvular and aortic disease
- Presenting symptoms of patients with lung cancer
- Manifestations and effects of COAD

Diagnosing patients

With cardiac and thoracic disorders

- ECG and stress testing
- Coronary angiography
- Biochemical and haematological analysis
- PFT and understanding chest x ray
- Rapid access lung cancer services

Treating patients

With cardiac and thoracic disorders

- PCI and Thrombolysis
- Drug management
- Cardiac surgery
- EP and pacing
- Cardiac rehabilitation

Disease mechanisms of Cardiothoracic disorders

- Manifestations and effects of coronary artery disease / angina
- Electrophysiology disorders
- Valvular and aortic disease
- Presenting symptoms of patients with lung cancer
- Manifestations and effects of COAD

Diagnosing patients

With cardiac and thoracic disorders

- ECG and stress testing
- Coronary angiography
- Biochemical and haematological analysis
- PFT and understanding chest x ray
- Rapid access lung cancer services

Treating patients

With cardiac and thoracic disorders

- PCI and Thrombolysis
- Drug management
- Cardiac surgery
- EP and pacing
- Cardiac rehabilitation

Rationale to debate

- Defined psychomotor tasks and their closely coupled cognitive/affective skills. These set the baseline for occupational units defined by competence/competence clusters.
- Roles are defined not just by these but by the operational environment that places additional types of cognitive and affective skills upon the individual.
- Units can be written specifically focussed upon these to be shared and linked to the relevant psychomotor tasks through rules of combination to roles the education is designed to underpin.
- In this way, higher skills levels can be accommodated within a streamlined qualifications framework based upon competence.

“The most socially useful learning in the modern world is the learning of the process of learning, a continuing openness to experience and incorporation into oneself of the process of change.”

Carl Rogers