Making the move from student to world-class researcher

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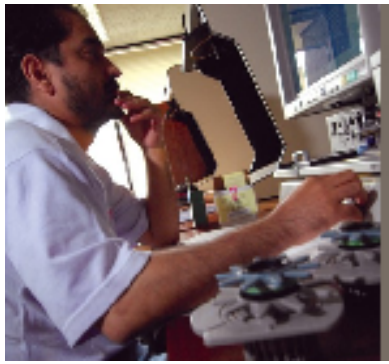
Summary

- Introduction
- What is world-class research:
  - Management
  - Provision
  - Engagement
  - Measurement
- To identify: Key themes
- Conclusions



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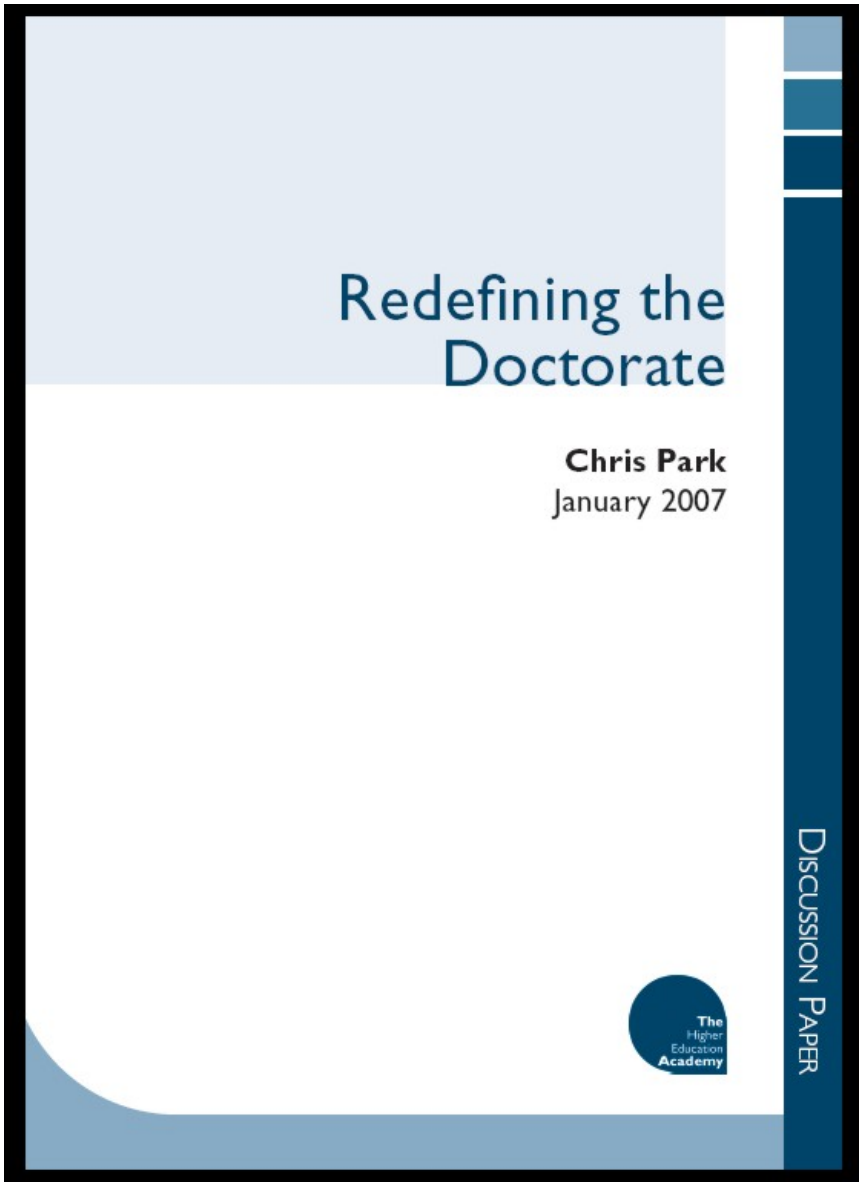
HEA Debate

"Many commentators and observers believe that the time is right and the sector is ready for a national debate in the UK on the nature of the doctorate, given the multiple drivers for change, multiple agendas at work, and the multiple stakeholders with an interest in both the debate and the outcome. This discussion paper is designed to help frame and inform such a debate, which will not only bring together the major stakeholder groups in a shared conversation but also provide opportunities for members of the academic community to contribute to the discussion via a series of national workshops and meetings."



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2020 Vision Conference

Some Trends

- Massification
  - Driven by economic growth considerations and "knowledge economies". Many governments want Higher Education to cover substantial proportions of their populations.
- Diversification
  - People entering HE from large range of backgrounds – many have no tradition of HE
- Internationalisation
  - Growing recognition of value of incorporating large range of nationals into institution.
  - Preparing workforce for international working
- Concentration
  - Creation of Doctoral Training Centres

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Management of Research Training

- What is the most effective way to manage research student development and training?
  - Different levels
    - Institutional
    - Faculty
    - Research “Centre”
    - Department/School
  - Coordination of training across levels
  - Role of Doctoral Training Centres?

- **What is the PhD?**
  - “Original research” plus +?

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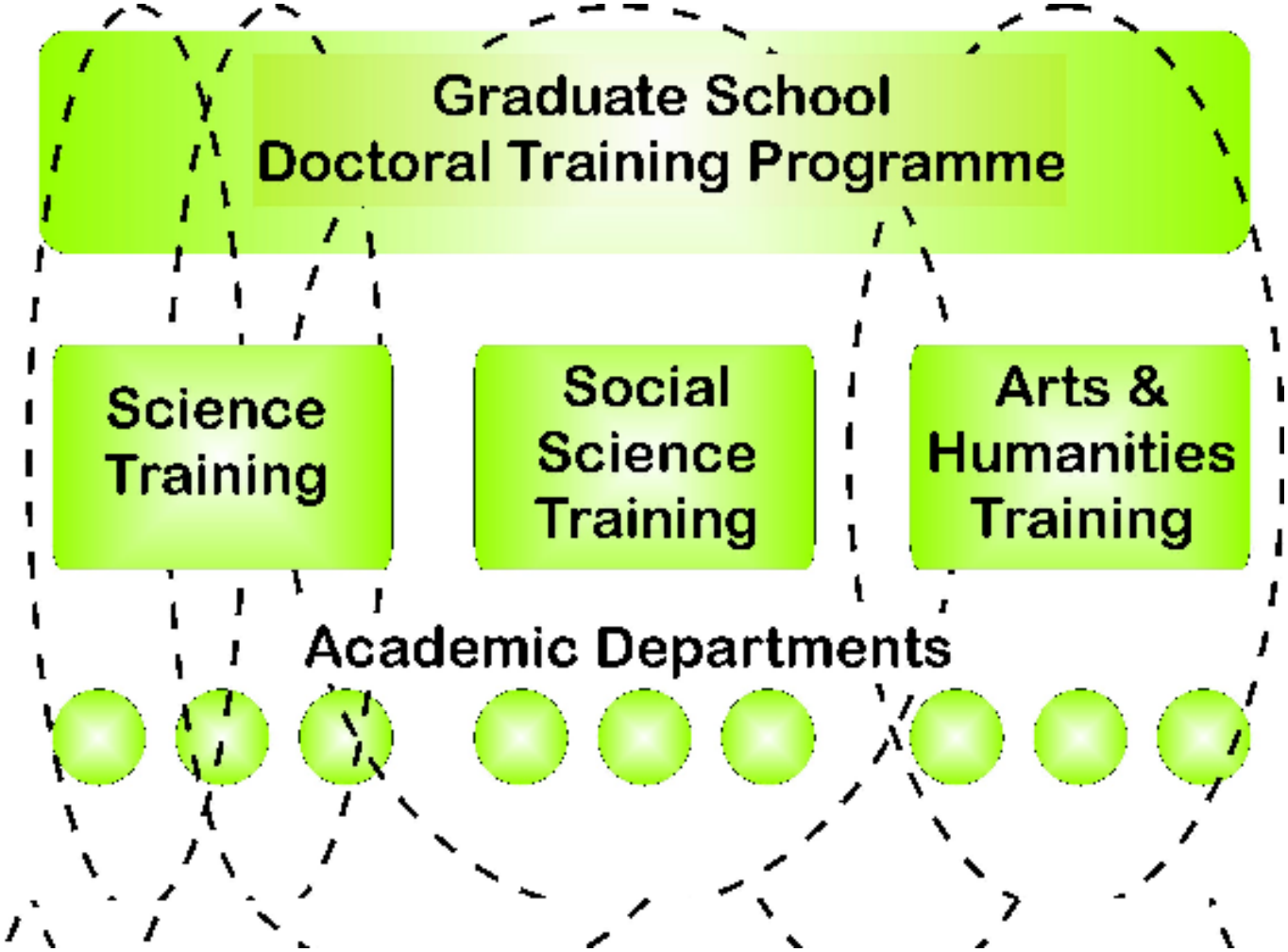
One model of management?



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Doctoral Training Centres

How do we get engagement?

- Mandatory or optional?
  - Role of a needs analysis
  - Monitoring of attendance
    - Diploma Supplement?
- Role of supervisory teams? [*Supervisory styles?]*
  - Promoting of training
- Publicising training
  - Departments, handbooks, emails etc.
- Who offers training?
  - Where is the “home” for good training?
- Role of buildings and estate in supporting communities of practice

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What is researcher training?

- 2001 Joint Skills Statement
  - A: research skills and techniques
  - B: research environment
  - C: research management
  - D: personal effectiveness
  - E: communication skills
  - F: teamworking and networking skills
  - G: career management
- Is this still an appropriate benchmark?

See: http://www.vitae.ac.uk/jss

Note development of researcher development framework: http://www.vitae.ac.uk/rdf

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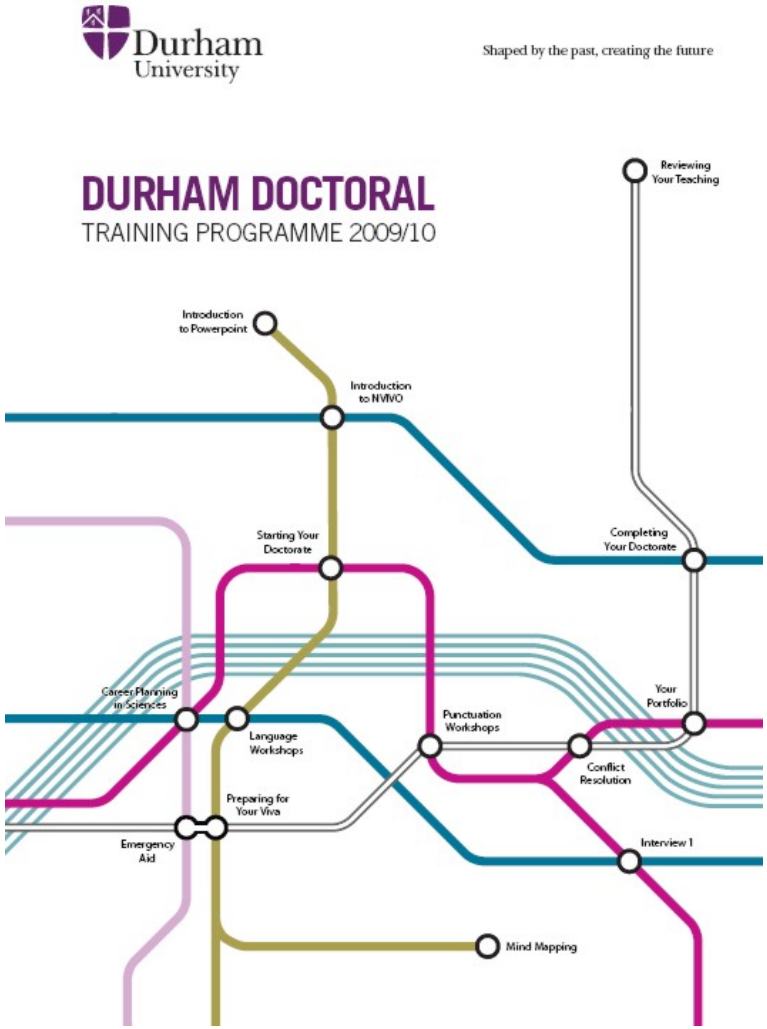
One model of training

- 300+ workshops and events
- 10,000+ places
- Covers sections C-G of JSS



2009 THE AWARDS
Times Higher Education
Winner Outstanding Support for Early Career Researchers

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http://www.dur.ac.uk/graduate.school/doctoral.training/

One model of training – details

- **Research Management:** including time and project management, data and information management, and managing the supervisory relationship.
- **Research Skills:** with sessions for PhD researchers on effective data analysis and conducting focus groups.
- **Personal Effectiveness:** workshops on stress management, interview technique, and developing writing & communication skills.
- **IT Training:** courses run with the ITS promote generic skills (e.g. in Word, Excel and PowerPoint), but also more specialised data handling skills (e.g. in Nvivo, LaTeX, SPSS, MATLAB).
- **Teaching in Higher Education:** DULTA provides an opportunity for postgraduates to undertake professional development *and* gain accreditation as teachers in higher education.

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How do we measure success?

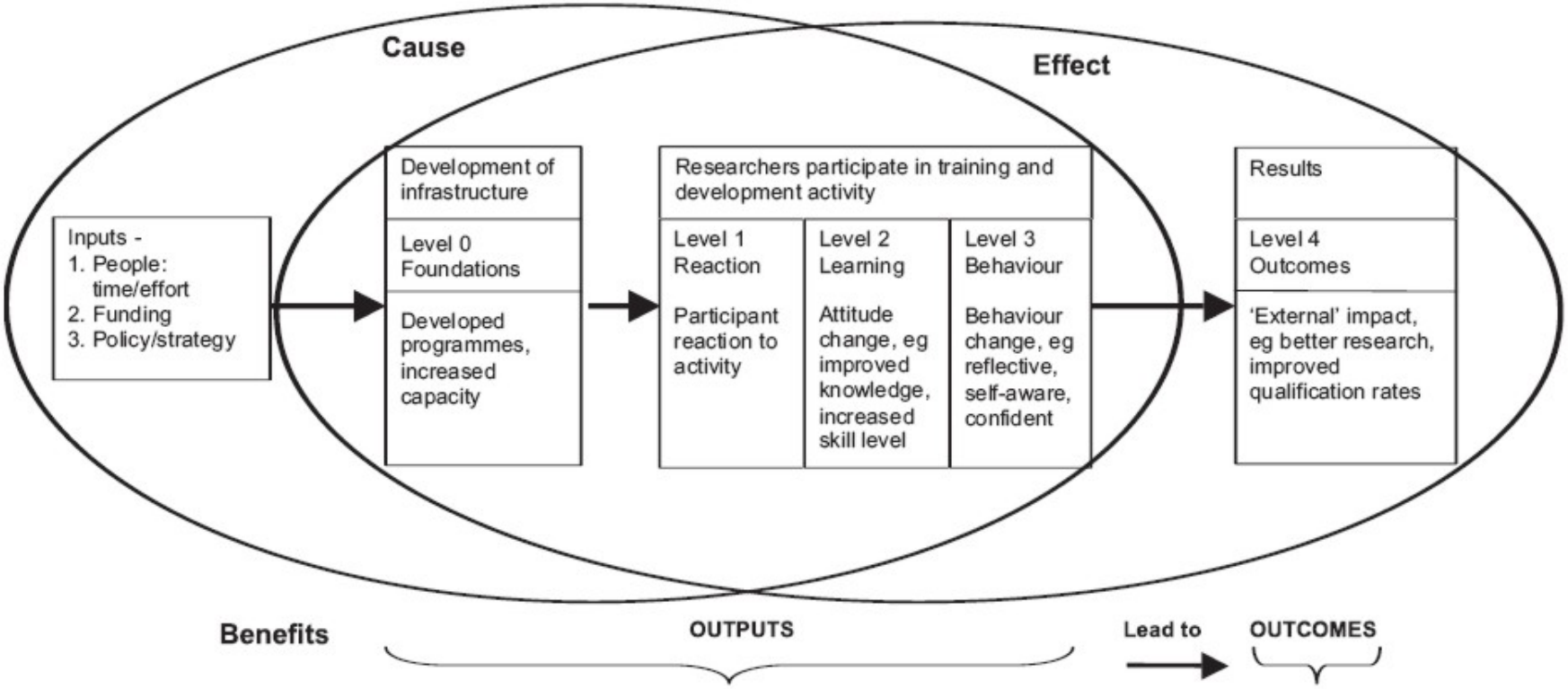

Figure 1: Schematic representation of projected benefits at different impact levels (levels 0 - 4)
See text for explanation of levels.

http://www.vitae.ac.uk/rugbyteam

Impact Framework

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The Rugby Team
evaluating the impacts of developing researcher skills

External Priorities for Training?

- What are stakeholders priorities?

Completion rates and times

- According to HEFCE (2005):
  - Of students starting in 1996/97:
    - 36% completed within 4 years
    - 57% completed within 5 years
    - 71% completed within 7 years
    - Completion rates:
      - Highest in Natural Sciences
      - Lowest in Arts and Humanities

http://www.hefce.ac.uk/news/hefce/2005/phd.asp

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Factors affecting completion

HEFCE (2005). Seven year qualification rates:

- **Funding**
  - Research Council or charity funding **80%**
  - Overseas students with external support **75%**
  - No financial support **59%**

- **Age** (Under-25s have a higher completion rate)
  - Full-time students aged under 25 **78%**
  - Full-time students over 30 **62%**

- **Subject studied**
  - Biological and physical sciences **81%**
  - Mathematics, engineering, medical subjects and agriculture also have **70% +**

http://www.hefce.ac.uk/pubs/hefce/2007/07_28/

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Changes in external environment

- Diversification
- Increasing numbers
- New doctoral programmes
- Requirements of stakeholders
  - UK Research Councils – Training
  - QAA – Code of Practice
  - HEFCE – Threshold Standards
- Internationalisation
- Bologna Process

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QAA

HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND hefce

PRES 2009

The Higher Education Academy

Postgraduate Research Experience Survey

- Participation
  - HEIs – 82 [108 in total across all years]
- Satisfaction levels high 80%+ for research students ⇧
- Skills development highest levels of satisfaction
- Students positive about supervisors' skills and subject knowledge
  - Highest: supervisor skills & subject knowledge (84%)
  - Lowest: advice on literature search (64%)
- <50% encouraged to reflect on professional development
- <40% encouraged to reflect on career opportunities

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Intellectual climate

- Lowest mean scale score (3.45 out of 5.0)
  - 2/6 in importance for completion (87%)
  - Experience met/exceeded expectation (49%)
  - Highest: maths & physical science
  - Lowest: law, New Route PhD
- Multiple regression
  - 2nd most important scale in 'explaining' experience (weak); 6th in 'explaining' completion (very weak)
- Items
  - Highest: good seminar programme (58%), opportunities for social contact with other research students (57%)
  - Lowest: research ambience stimulates my work (50%), feel integrated into dept community (47%)

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PRES Priority areas - PGR

- Research environment
  - Good seminar programme [57%]
  - Opportunities for social contact [53%]
  - Opportunities to become involved in research culture [52%]
  - Stimulating research ambience [49%]
  - Feel integrated into department community [49%]
- Financial support
  - appropriate financial support for research activities [45%]
- Feedback from students
  - institution responds to feedback [48%]
- Personal development: encouragement to
  - reflect on professional development needs [47%]
  - think about range of career opportunities [38%]
  - reflect on career development needs [38%]

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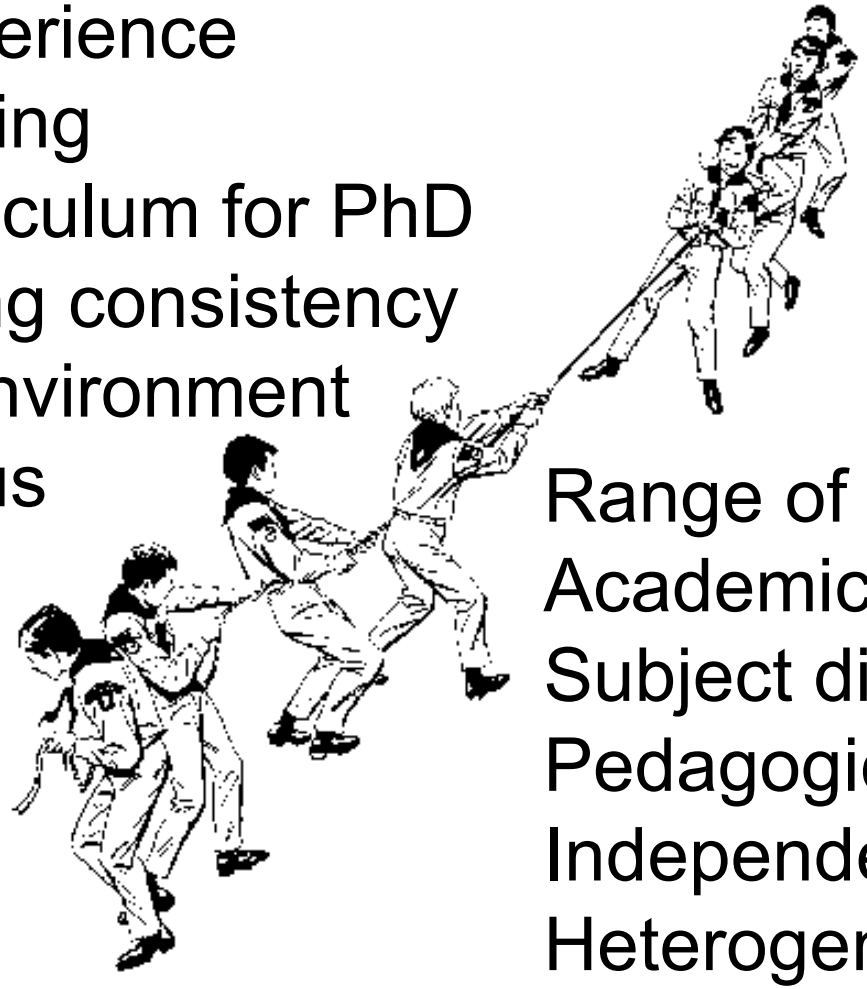
Some Tensions

Equity of experience
Broader training
National curriculum for PhD
Demonstrating consistency
Supportive environment
Homogeneous
Uniformity
Compliance
Performance

Assurance



Enhancement

Range of mode of study
Academic standards
Subject diversity
Pedagogic variation
Independent learners
Heterogeneous
Alignment
Time: opportunity, impact

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Emerging Themes

- To be confirmed by workshop

?

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References

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  - http://www.qaa.ac.uk
- Higher Education Funding Council for England
  - http://www.hefce.ac.uk
- Department for Business Innovation and Skills
  - http://www.bis.gov.uk
- Research Councils UK
  - http://www.rcuk.ac.uk
- The Higher Education Academy
  - http://www.heacademy.ac.uk
- Durham University Graduate School
  - http://www.dur.ac.uk/graduate.school

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