

Why Doctoral Schools can lead to better outcomes for PhD graduates

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TOWARDS A GLOBAL
CORE VALUE SYSTEM IN
DOCTORAL
EDUCATION

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Agenda

- The purpose of the PhD
- No longer an academic apprenticeship
- What is best for a PhD candidate?
- Transformation through doctoral schools
- Dilution of quality and core value?
- Doctoral Schools and the Hannover Principles



“The purpose of the PhD dates to its modern emergence in the German university system in the early nineteenth century (Clark, 2006). It was to prepare male scholars who could teach authoritatively and research independently in their discipline. Their role was the transmission, conservation and advancement of largely disciplinary knowledge: thus, they would be ‘stewards of the discipline’ (Golde and Walker, 2006) for the development and betterment of society and human life based on science”.

The doctoral-education context in the twenty-first century:
change at every level, Grant et al in Towards a Global Core
Value System in Doctoral Education 2022

The ghosts of the medieval guild system in the PhD system are sufficiently strong that ‘the apprenticeship model’ of PhD delivery is widely discussed in the educational literature and greatly influences not only how most PhDs are actually delivered, but also new developments in doctoral education. The PhD thesis is still often regarded as a ‘masterwork’ – an equivalent to the apprentice piece of trades apprentices – through which the doctoral student demonstrates key skills; if it passes scrutiny by experienced scholarly practitioners the ‘apprentice’ is regarded as having developed the skills to be a member of the guild, i.e. the Academy.

Apprenticeships and the evolving doctorate: back to the future?

Willey N., Cleaver E. (2019),

<https://wonkhe.com/blogs/apprenticeships-and-the-evolving-doctorate-back-to-the-future/>



Nicholas A. Christakis ✓

@NACristakis

...

Graduate students are primarily students and trainees, not ordinary workers. Academia is a calling. I suspect unionization will tip the balance so faculty prefer, at the margin, to hire post-docs to do research in their labs rather than students.



yaledailynews.com

Local 33 triggers unionization process - Yale Daily News

Members of Yale's unofficial graduate workers union submitted union authorization cards to the National Labor Relations Board's Hartford office on...

Geistige Arbeit als Beruf

Vorträge vor dem
Freistudentischen Bund

Erster Vortrag

Prof. Max Weber

(München)

Wissenschaft als Beruf



München und Leipzig
Verlag von Duncker & Humblot
1919

The expansion of doctoral education and the changing nature and purpose of the doctorate, Sarrico C.S., Higher Education (2022)
<https://doi.org/10.1007/s10734-022-00946-1>

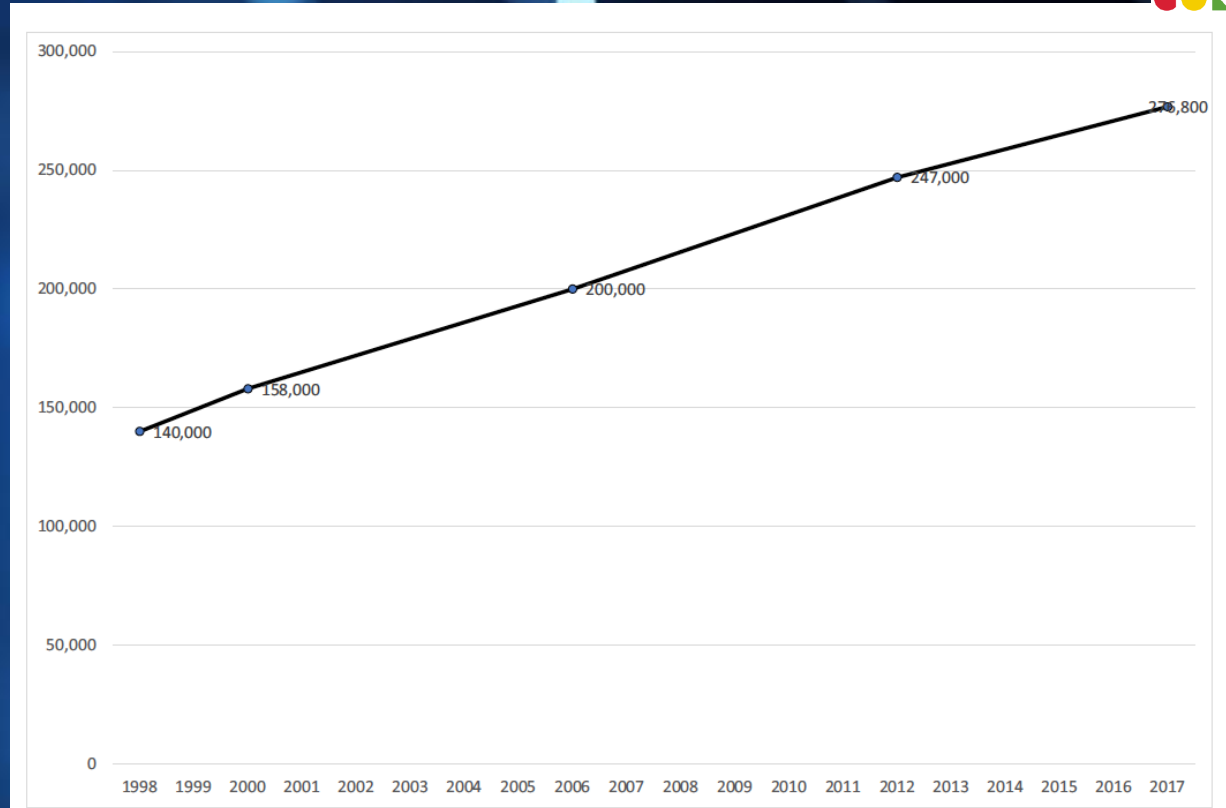


Fig. 1 New doctorates awarded, OECD countries. Source: Auriol (2010), Auriol et al. (2013), OECD (2014), OECD (2019b)

“Since 2007 the world population of researchers has risen by 21% to a total of 7.8 million with the highest proportion in the EU (22%). However, the total number of academic and research positions has not kept pace with this trend”

UNESCO Science - towards 2030 (2016)

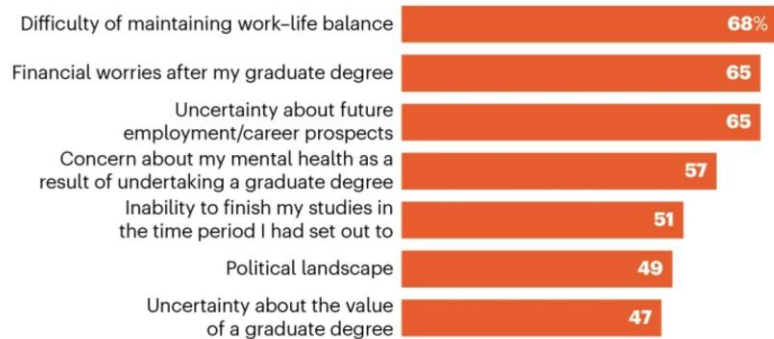


“The latest data show that this had further increased between 2015 and 2018 by 13.7%”

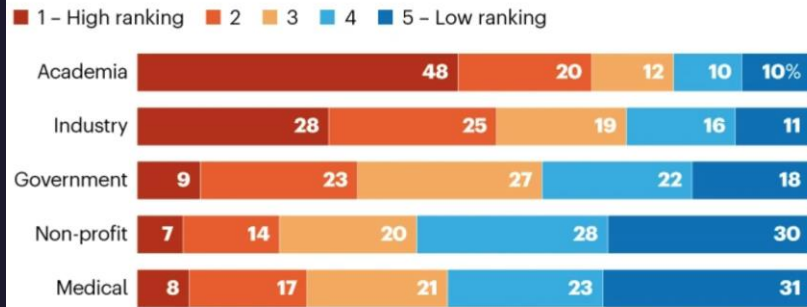
UNESCO Science - the race against time for smarter development (2021)



What concerns have you had since you started your graduate degree?



Which of the following sectors would you most like to work in ultimately?



CAREER FEATURE | 24 October 2022

Stress and uncertainty drag down graduate students' satisfaction

Scholars in PhD and master's programmes struggle with securing work-life balance and support around career training and mental health, finds *Nature* survey.

CAREER FEATURE | 07 November 2022

'I don't want this kind of life': graduate students question career options

As interest in academia fades, scholars in PhD and master's programmes are dubious about the value of their degree in advancing their professional lives, finds *Nature* survey.

- i. Growing demands for supervision (and supervisors or supervision 'teams') to encourage and support future graduates' acquisition of 'professional' competences and employability
- ii. Increasingly well-defined, regulated and competitive recruitment criteria to ensure, not only transparency and fairness of admission, but also the selection of the best doctoral candidates and, thus, the best prepared graduates for the labour market
- iii. Expanding organisation and regulation of doctoral education around a curricular component and specific institutional structures (such as doctoral schools), to ensure the quality of the degree and its social and professional relevance
- iv. Increasingly diversified doctoral training as a response to the expectations and needs of an increasingly larger and varied student body and potential employers regarding qualifications and career opportunities
- v. Growing collaboration and alignment of doctoral education with the economic sector and the labour market

Evolution

The transformation of doctoral education: a systematic literature review (2021), Cardoso S.S. et al., Higher Education
<https://doi.org/10.1007/s10734-021-00805-5>

From Registration to Graduation and Beyond....

Research Excellence

Recruitment

Supervision

Interdisciplinary, Intersectoral, International & Virtual Mobility

Continuous Professional Development

Career Advice/Planning

Tailored to the individual PhD candidate

What is a Doctoral School

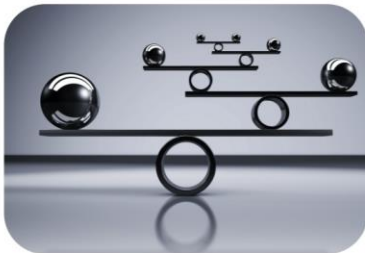
“Mono-institutional doctoral schools' organisation is a priori less complex and more effective than inter-institutional networks”.

“Hence, the organisational form and the type(s) of activities of doctoral schools should be and generally are chosen according to the objectives. Simply copying the American Graduate School or another model is not necessarily the right thing to do for every situation. On the contrary, it is worth spending some time thinking about the objective of a doctoral school within its disciplinary and institutional context and making sure this objective is shared by all involved actors”.

How Effective Are Doctoral Schools?

How Effective Are Doctoral Schools? Organisational Characteristics and Related Objectives, Baschung L., in Structural and Institutional Transformations in Doctoral Education Social, Political and Student Expectations, Cardoso et al., Palgrave Macmillan (2020)

Rights and Responsibilities (Researchers, Employers and Funders)



**ETHICS AND INTEGRITY OF
RESEARCH AND
INNOVATION**



**RESEARCHERS ASSESSMENT,
RECRUITMENT AND
PROGRESSION**



**WORKING CONDITIONS
AND OPEN SCIENCE**



**RESEARCH CAREERS AND
TALENT DEVELOPMENT**

Researchers Charter

IRISH UNIVERSITIES STUDY (2007-2011)

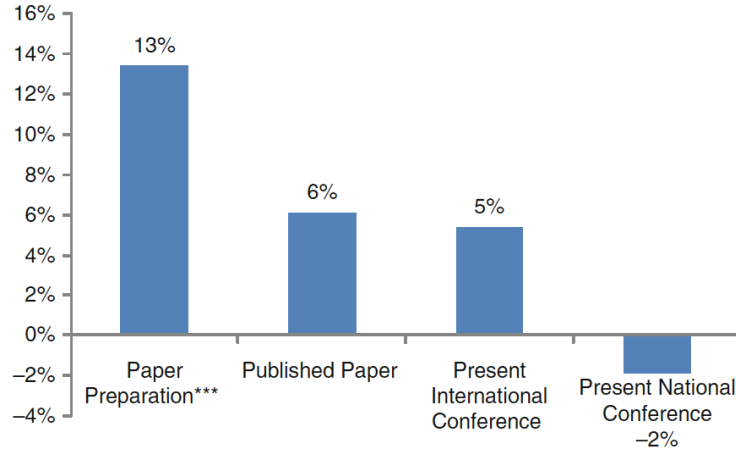


Fig. 26.11 Likelihood of producing the following PhD outputs in a structured PhD programme (significance levels for graphs *** $p < 0.01$)

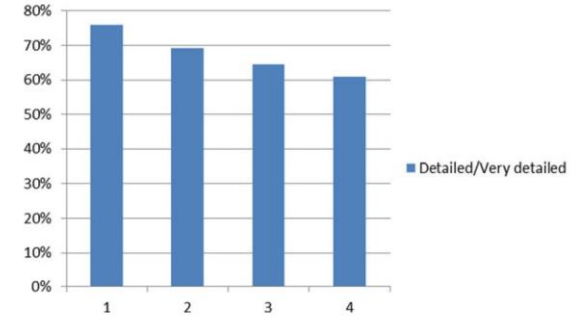
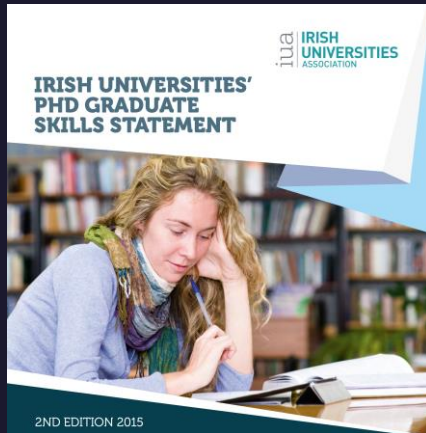


Fig. 26.8 Response to question, 'Before you Began your PhD, Did You Have an In-Depth Discussion with Your Primary Supervisor or Co-Supervisor Regarding Your Project?' against year of PhD

“I just want to point out that the risk of too much emphasis on formal procedures is that the natural curiosity and creativity of people is impeded. I consider the PhD to be a proof of competence as a researcher”



DEGRADING OF PHD'S THROUGH THE INTRODUCTION OF DOCTORAL
SCHOOLS
De Graaff E., SEFI 2014 42nd Annual Conference, Birmingham, UK



TEAM-WORKING AND LEADERSHIP

- develop and maintain effective relationships with colleagues
- work in a collaborative environment
- awareness of their own working style, that of others, and how they interact
- understand how to acknowledge others' views, with a willingness to reflect on and critically appraise them
- understand leadership in team environments, recognising the strengths of team members and work effectively to achieve mutual goals

COMMUNICATION SKILLS

- demonstrate effective writing and publishing skills
- effectively use and decide on appropriate forms and levels of communication
- communicate and explain research to diverse audiences, including both specialist and non-specialist
- teach and support the learning of undergraduate students when involved in teaching and demonstrating

ENTREPRENEURSHIP & INNOVATION

- understand the role of innovation and creativity in research
- demonstrate an awareness and understanding of intellectual property issues, appreciate and, where appropriate, contribute to knowledge exchange
- appreciate the skills required for the development of entrepreneurial enterprises in the public and private sectors
- understand different cultural environments, including the business world, and the contribution that knowledge transfer can make to society

This skills statement, describes the desired learning outcomes and skills that PhD students will have developed during their doctoral education and training. Students develop these skills through their research, additional taught modules and shorter training opportunities.

These principles recognise that advancement of knowledge through original research is the core component of PhD education, but PhD education must also facilitate additional skills development opportunities.

THE HANNOVER RECOMMENDATIONS

1. ESTABLISH A GLOBAL JOINT VALUE SYSTEM FOR DOCTORAL EDUCATION BASED ON AN ECOLOGY OF KNOWLEDGES WHICH RECOGNIZES AND SEEKS TO OVERCOME EXISTING INEQUALITIES IN THE ACCESS TO DOCTORAL EDUCATION AND THE PROVISION OF KNOWLEDGE.
2. FOSTER DIVERSE WAYS OF OPERATING – EMBRACING DIVERSITY OF CULTURES, PEOPLE AND UNIVERSITIES.
3. ENCOURAGE DIVERSE FORMS OF MOBILITY TO DEVELOP MULTIPLE CAREERS AND ENSURE A MORE BALANCED DISTRIBUTION OF TALENT AROUND THE GLOBE.
4. ENSURE THAT THE KEY CONTRIBUTION OF THE ARTS, HUMANITIES AND SOCIAL SCIENCES RESEARCH AND DOCTORAL EDUCATION GETS STRONG SUPPORT.
5. SUPPORT MORE RESEARCH ON DOCTORAL EDUCATION FOR EVIDENCE-BASED DECISION-MAKING ON DOCTORAL EDUCATION AROUND THE GLOBE.
6. ADVANCE THE INSTITUTIONAL ENVIRONMENT FOR DOCTORAL EDUCATION CONTINUOUSLY.
7. THE PIVOTAL GOAL OF DOCTORAL EDUCATION MUST BE AND REMAIN THE DEVELOPMENT OF ORIGINAL, RESPONSIBLE, AND ETHICAL THINKERS, AND THE GENERATION OF NEW AND ORIGINAL IDEAS AND KNOWLEDGE.

Thank You

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<https://www.uclpress.co.uk/products/176625>

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