

May 2003/23

Policy development

Consultation

Responses should be sent by e-mail
by 30 September 2003

This document invites higher education institutions to contribute further to the development of threshold standards and an underlying framework of good practice for postgraduate research degree programmes. It is the second stage of a joint consultation process by the four UK higher education funding bodies. Final details will be published in the autumn.

Improving standards in postgraduate research degree programmes

Formal consultation

Department for Employment and Learning, Northern Ireland
Higher Education Funding Council for England
Higher Education Funding Council for Wales
Scottish Higher Education Funding Council

Improving standards in postgraduate research degree programmes

Formal consultation

To	Heads of all UK higher education institutions
Of interest to those responsible for	Research degrees, Postgraduate training, Quality assurance
Reference	2003/23
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Executive summary

Purpose

1. This document invites higher education institutions (HEIs) to contribute further to the development of threshold standards and an underlying framework of good practice for postgraduate research degree programmes (RDPs).

Key points

2. This is the second consultation undertaken by the four UK higher education funding bodies, as part of a joint programme to enhance the quality of RDPs by developing threshold standards. The first informal consultation was published in January 2003 (HEFCE 2003/01).

3. The threshold standards that we propose are built on good practice already existing in the sector. They are intended to represent an essential minimum for the provision of high quality RDPs across all disciplines, types of RDP and modes of study. We envisage that all HEIs that receive public funding for RDPs from the funding bodies should comply in future with this set of standards.

4. To encourage ongoing improvement in provision beyond the minimum level represented by these standards, we further propose an underlying framework of good practice. This framework is not intended to be prescriptive, but rather for institutions to adopt according to local conditions.

5. Both the proposed threshold standards and framework of good practice are drawn from a research report originally published on the HEFCE web-site in October 2002, and revised in the light of responses to the informal consultation.

Action required

6. We now invite HEIs to contribute further to the development of threshold standards and an underlying framework of good practice for RDPs by responding to Table 1 and the questions in paragraph 36. Responses will be incorporated into a formal announcement on the future of the programme, which the funding bodies plan to issue jointly in autumn 2003.

7. Any responses should be sent by e-mail, by 30 September 2003, to Will Naylor at HEFCE, w.naylor@hefce.ac.uk

Background

8. Research degree graduates are key to developing the UK as an innovative knowledge economy. With the increasing sophistication of research and other activity in higher education, the public sector and industry, successful leadership demands the specialised knowledge and wider skills gained by research degree students in a wide variety of disciplines. As the UK continues to invest more heavily in research and development, towards a European Union target of 3 per cent of GDP by 2010, we may expect the demand for these skills to rise still further.

9. Providers of RDPs have generally responded positively to this challenge. In particular, there has been a growing awareness of the research degree as a two-fold process, focused not only on a scholarly piece of work that will make a significant contribution to knowledge and understanding, but also on the development of research and other skills that will in many cases go far wider than the original research. This has resulted in great efforts by HEIs to reform and enhance RDPs. These efforts are of clear benefit to higher education, research and industry, and inform to a great extent the standards and good practice set out in this document.

10. However, several recent reviews of research have raised serious concerns about the extent to which this crucial second role of the RDP has permeated the whole HE sector. These reviews include:

- the HEFCE 1999 Fundamental Review of Research
- 'SET for Success' – Sir Gareth Roberts' review of the supply of people with skills in science, technology, engineering and mathematics
- 'Investing in Innovation' published by the Government in 2002
- the review of the Arts and Humanities Research Board (AHRB) postgraduate programme
- 'Doctoral Futures' – a review of the career destinations of arts and humanities research students by the Council of University Deans of Arts and Humanities.

11. Chief among these concerns is the perception that UK research degrees do not prepare people adequately for careers outside academia, either because of insufficient access to transferable skills training, or a more general lack of awareness and articulation among students of the skills gained by studying for a research degree. Alarmingly, in some disciplines this perception has acted as a deterrent to RDP recruitment.

12. The success of RDPs in preparing people for careers within academia has also been questioned. 'SET for Success', for example, found that in some institutions and courses the near-exclusive focus of the RDP on the research project, and its lack of preparation for other elements of the academic role such as teaching, hampers the development of some key skills demanded in academic employment. Given the pivotal role of the HE-based academic in training the next generation of research degree students, this too is a worrying finding.

Response

13. The four UK higher education funding bodies¹ believe it is incumbent on them as major funders of research training to respond positively to the concerns raised in these reviews of research. In particular, following the precedent set by other major funders of research, we should ensure that the RDPs we support take account not only of the need to produce first-class original research projects; but also to develop highly skilled students more able to tackle the problems of the next generation.² Currently we have no means of ensuring that the substantial funds allocated to RDPs are being used to fully meet these objectives (although we are aware that good practice prevails in most institutions). Thus there is a compelling case for the introduction of threshold standards, so that we can discharge our responsibility for the effective use of public money.

14. Furthermore, for the majority of institutions which already meet these threshold standards, we propose an underlying set of good practice to use as a guide to quality enhancement.

15. Together we hope these mechanisms will ensure that more students are given both the support required to produce a first-class original piece of research, and access to other elements, including skills training, which contribute so heavily to students' achievements after graduation, and more broadly to the development of the UK economy and society. Developments currently taking place in the creation of a European higher education area put an added premium on the higher quality and greater transparency in the provision of RDPs that we believe these mechanisms will help to achieve.

Development of threshold standards and framework of good practice

16. The funding bodies began the process of developing standards in 2001 by commissioning a team of consultants, overseen by a steering group chaired by Professor Roland Levinsky, to produce a quality framework covering the breadth of the RDP. This wide remit reflected our recognition that issues of induction, supervision, progression and training are interlinked, and all contribute to the provision of high quality RDPs.

17. The consultants built the quality framework from existing good practice in the sector. They observed this good practice by surveying more than 100 UK HEIs and conducting a series of interviews, visits and workshops with the academic community, major funders of research students, and other stakeholders. There is also overlap between the framework and the areas covered by the Quality Assurance Agency (QAA) Code of Practice. This reflects both the interest of the QAA in the programme, and our aspiration to achieve better co-ordination and agreement around the different requirements that separate bodies have for RDPs. The results of this formal consultation may be expected to influence the future development of the QAA Code of Practice.

¹ The Higher Education Funding Council for England, the Scottish Higher Education Funding Council, the Higher Education Funding Council for Wales and the Department for Employment and Learning (Northern Ireland). These are referred to in this document as 'the funding bodies'.

² The funding bodies define a research degree programme as any higher degree awarded primarily on the basis of an original piece of research.

18. The steering group's final report was published on the HEFCE web-site, www.hefce.ac.uk under Publications/R&D reports, in October 2002. It proposed that over 30 items should be regarded by the funding bodies as potential minimum standards for the provision of RDPs.

19. In January 2003, the funding bodies reproduced the report in the informal consultation document, 'Improving standards in postgraduate research degree programmes' (HEFCE 2003/01). Recognising that defining over 30 items as minimum criteria was unrealistic in terms of the burden of accountability, the informal consultation proposed a set of core standards which appeared to represent an essential minimum for providing high quality RDPs. The informal consultation asked institutions to respond to the steering group report and the core standards proposed, by 14 March.

Results of the informal consultation

20. The informal consultation proved to be an enormously valuable exercise and we would like to thank all those who took part. The responses showed broad support among HEIs for the concept of minimum standards. It was widely agreed that the methodology of the consultancy report was sound; the criteria covered all the essential components of high quality research degree provision; and the core standards were built from good practice and were therefore eminently achievable.

21. However, it was also widely felt that:

- some of the numerical targets did not recognise the different requirements of separate disciplines
- some of the numerical targets would be difficult to achieve in small and specialised units
- there was not necessarily a correlation between a unit's RAE grade and the quality of its research training environment, nor the capability of individuals to supervise or examine students
- the framework was focused on the needs of young, full-time students and paid little regard to the requirements of part-time, mature or overseas students
- the funding bodies had not been clear about which standards they envisaged as mandatory and which (if any) they regarded as guidance for good practice.

Core standards and framework of good practice

22. We take the concerns raised through the informal consultation very seriously and have sought to modify the standards accordingly. These are set out in Table 1 below. It is also apparent that we must be explicit about our aspirations for threshold standards versus the underlying framework of good practice.

23. Our aim is two-fold:

- a. To secure, where appropriate, the consistency of RDPs provided by UK HEIs.
- b. To enhance the quality of that provision.

24. To secure appropriate consistency, we propose a set of minimum threshold standards (denoted by **bold type** in Table 1) which we believe are fundamental to good research training across all disciplines, types of RDP, and modes of study. These threshold standards are built on good practice already existing in much of the sector. We envisage that all HEIs that receive public funding for RDPs from the funding bodies should comply in future with this set of standards (see paragraphs 32-34 below).

25. To encourage improvement in provision, we further propose an underlying framework of good practice (denoted by plain type in Table 1) which we hope institutions will use as a guide to quality enhancement. This framework is not intended to be either exhaustive or prescriptive, but rather for institutions to adopt according to their own needs, traditions, cultures and decision-making processes. As the threshold standards are embedded and the benchmarks for research degree provision are raised, we envisage that some of these guidelines may become threshold standards. However, this is a long-term aspiration which is contingent on the initial success of the programme and subsequent consultation with the sector.

26. Each threshold standard and good practice guideline has been targeted at delivering a tangible benefit to research students, but they have also been designed to act as indicators of the overall quality of RDPs. Hence we have not defined all the standards in precise detail, but leave it to institutions to interpret the meaning of 'demonstrably' research active, 'interactions' between student and supervisor, and other criteria. What we are seeking to achieve is engagement with the overall spirit of the programme, which is to produce holistic enhancement in consistency and quality. Where flexibility exists, it will be up to institutions to demonstrate that their interpretation of particular criteria bears out such an engagement. Our proposals for monitoring threshold standards will enable institutions to act in this way (see paragraphs 27-29).

Table 1 Minimum threshold standards and good practice guidelines for RDPs

Under each heading, proposed minimum threshold standards are shown in **bold**; recommended good practice guidelines are in plain text.

1. Institutional arrangements

Evidence that the institution has paid attention to the quality of research training.

a. Implementation of a code of practice across the whole institution covering the eight headings in this framework.*

b. Institution to monitor, review and act on the application of its code of practice.

c. Institutional and unit performance to be monitored annually on progress against agreed targets, including:

- i. Submission rates.
- ii. Average time to submission.
- iii. Completion rates.
- iv. Number of appeals and complaints.
- v. Number of appeals and complaints upheld.
- vi. Student feedback.

2. Research environment

RDPs should only be offered where the student can be trained in an environment that is supportive of research.

a. Unit/cognate area of research to facilitate effective interactions between the student and a mix of active researchers and students. For units with small numbers of active researchers and students, provision should be made for interaction with related units at the same or other institutions.**

b. 70 per cent of submissions made within four years for full-time students, or eight years for part-time students (calculated at institutional level).

c. Adequate facilities for the research project, including library and IT facilities.

3. The selection, admission, enrolment and induction of students

Selection, admission, enrolment and induction procedures should be clear and consistently applied, in order to promote equality of opportunity and ensure that the student is appropriately prepared for the RDP and fully understands its requirements.

a. Normal entry requirement to be either:

- i. 2(i) degree in a relevant subject (or overseas equivalent).**
- ii. Relevant Masters qualification (or overseas equivalent).**
- iii. Institutionally defined equivalent accreditation of prior learning (APL) or experiential learning (APEL).**

- b. Selection process and admission decisions to involve at least two demonstrably active researchers trained in selection and admissions procedures.
- c. Open access to all relevant admissions material on the web.
- d. Formal offer should include:
 - i. Total fees and charges.
 - ii. Period of study.
 - iii. Specific requirements.
 - iv. Other requirements.
 - v. Direction to other relevant information, such as university regulations and codes of practice, preferably on the web.
 - vi. Student's responsibilities.
- e. Student and institution to sign up to an agreement on the desired outcomes of the RDP (see section 6a).
- f. Institution to provide a formal induction process and monitor attendance.

4. Supervisory arrangements

Systematic and transparent supervisory arrangements to be in place to ensure that the student has access to regular supervisory support, input from other research active staff, and advice from an independent source, and is insulated against the risk of the unplanned loss of a supervisor.

- a. All new supervisors to undertake mandatory institutionally specified training.**
- b. Supervision to be provided by a supervisory team, preferably comprising at least two demonstrably active researchers with relevant knowledge and skills, one of whom should be designated as the main supervisor with overall responsibility for the student. Where this is not possible, one supervisor with relevant knowledge and skills is acceptable provided that an independent adviser is appointed to whom the student can refer general academic and pastoral issues.**
- c. Main supervisor normally to have had experience of at least one successful supervision within a supervisory team (defined as taking a student all the way through to a research degree award). Where the main supervisor has not had such experience, supervision must be provided by a supervisory team comprising at least one demonstrably active researcher with experience of at least two successful supervisions.**
- d. Main supervisor should normally take prime responsibility for a maximum of six students (head count). Where the main supervisor has responsibility for more than six students, the institution should demonstrate how it guarantees adequate contact between student and supervisor and avoids overburdening supervisors.**

- e. **There should be regular structured interactions between the student and the supervisor or supervisory team to report, discuss and agree academic and personal progress. Outcomes of all such interactions to be recorded.**

5. Initial review and subsequent progress

Systematic and transparent monitoring and assessment mechanisms to be in place to ensure the student's progress is reviewed independently and the final examination is rigorous, fair and consistent.

- a. Institutional procedures and time limits to be set, and unit performance monitored, for initial review and subsequent progress covering:
 - i. Initial review within 12 months of enrolment for full-time students or 24 months for part-time students, and confirm continuation or upgrade to a PhD.
 - ii. Annual review processes.
 - iii. Implications of the possible outcomes of each assessment.
 - iv. Criteria for deciding suspension or termination of a student's registration.
- b. **Progress of both full-time and part-time students to be formally reviewed annually by panels, including at least one person independent of the supervisory team.**
- c. **Final examination to be by a viva with an independent panel of at least two examiners who are demonstrably research active, at least one of whom is an external examiner.**
- d. Each examiner to provide an independent report on the thesis before the viva.

6. The development of research and other skills

Appropriate arrangements to be in place to help the student develop research and other skills.

- a. Student and supervisor or supervisory team to identify and agree a training needs analysis against the Research Councils' skills statement, as part of the induction process (see section 3e and Annex A). Student training needs to be reviewed regularly (perhaps as part of supervisory interactions).
- b. **Institution to provide the student with access to a training programme to develop research and other skills, as outlined in the Research Councils' skills statement.†**
- c. Student to maintain a jointly agreed record of personal progress in the development of research and other skills.
- d. Institution to formally review the training provided, to ensure that it is meeting the needs of its students.

- e. Minimum level of activities defined and monitored to promote breadth and depth of knowledge and experience by means of the student's attendance at internal and external seminars, conferences and discussion forums, and participation in presentations, teaching and demonstrations.

7. Feedback mechanisms

Mechanisms to be in place for the institution to collect, review and, where appropriate, respond to confidential feedback from all stakeholders in the RDP.

- a. Establish and operate confidential feedback mechanisms for:
 - i. Current students.
 - ii. Supervisory teams, review panels and examiners.
 - iii. External parties, including external examiners, funders, collaborative organisations, employers and alumni.
- b. Incorporate this feedback into the regular review of academic standards and provide information on action taken in response.

8. Appeals and complaints

- a. **Institution to arrange and publicise separate, fair, transparent, robust and consistently applied complaints and appeals procedures, appropriate to all categories of students.**

* Alternatively this might be evidenced through university regulations or similar.

** The informal consultation (HEFCE 2003/01) proposed a minimum standard for critical mass of at least five research active staff or post-doctoral researchers and ten research students. Many responses made compelling arguments against this target (mainly on the grounds that it was unrealistic for small and specialised units), and this standard was revised accordingly. However, we still believe that interaction among research students, postdoctoral researchers and research active staff is a crucial component of high quality RDP provision. We therefore invite institutions to propose suitable numerical thresholds (see paragraph 36).

† Throughout this document reference to the Research Councils includes the Arts and Humanities Research Board, which will achieve Research Council status subject to legislation.

Assessment

27. Our proposals for assessing the threshold standards highlighted in Table 1 keep the implementation and monitoring of these standards largely under institutional control. We believe this will enable institutions to engage with the overall spirit of the programme, which is to achieve holistic enhancement in consistency and quality; and will avoid the pursuit of targets that may result from an intrusive external assessment regime. Moreover, this would place the assessment of RDPs on a consistent footing with the assessment of teaching quality.

28. Thus we propose light-touch assessment arrangements, whereby institutions maintain responsibility for implementing threshold standards in ways that suit individual university regulations or codes of practice. Validation would then be undertaken by auditing institutions' internal quality assurance processes, rather than by the more onerous method of monitoring the provision itself.

29. We have begun to discuss with the QAA the possibility of incorporating this process into institutional audits from 2006-07. Subject to the results of the formal consultation on the review of research assessment (published by HEFCE on behalf of the UK funding bodies, HEFCE 2003/22), it may also be appropriate to consider special assessment activity before that time.

Co-ordination with other research funders

30. One of the overarching aims of this programme is to achieve better co-ordination and agreement around the different requirements that separate bodies have for RDPs. The framework has been discussed in detail with the Research Councils, which were represented on the project steering group. The framework borrows from the requirements that the Research Councils place upon departments that receive their studentship funding, in particular by the use of the Research Councils' statement on skills training requirements (see Annex A and section 6 of Table 1).

31. All the Research Councils support the principles behind this framework, the content of the framework and the proposed core standards. They are committed to working closely with the funding bodies both to improve the quality of postgraduate training in the UK, and to avoid unnecessary duplication of effort by institutions in monitoring and assessing research degree provision.

Costs and funding

32. Funding arrangements will differ between the individual funding bodies, but we are jointly committed to a study to establish the costs of delivering RDPs. This will include consideration of cost relativities between different disciplines.

33. We are also committed to maintaining a reasonable gap between introducing threshold standards and linking these standards to any form of conditional funding that each funding body may choose to adopt. This will allow HEIs to review and, where necessary, amend internal arrangements.

34. Finally, it must be emphasised that compliance with a set of threshold standards may not be the only determinant for the future allocation of funds for RDPs. For example, it could reasonably be anticipated that any new funding models for RDPs developed by the individual funding bodies will also take account of other factors, such as RAE ratings.

Issues for consultation

35. We now invite HEIs to contribute further to the development of threshold standards and an underlying framework of good practice for RDPs by responding to the proposals set out in Table 1. These responses will be incorporated into a formal announcement on the future of the programme, which the funding bodies plan to issue in autumn 2003.

36. In particular, we would welcome views on the following questions:

- a. Is the approach set out in this document the best way for the funding bodies to respond to concerns about the consistency and quality of RDPs?
- b. Are the individual threshold standards and guidelines for good practice appropriate?
- c. What, if any, are appropriate numerical targets for a critical mass of students, postdoctoral researchers and research active staff in different disciplines? (See section 2a of Table 1, and the notes to it.)
- d. Are there any aspects of the good practice guidance which should be threshold standards, or vice-versa?
- e. Are the proposals for assessment the best way for institutions to engage with the programme, while still confirming to the joint funding bodies that the threshold standards are being met?

37. Responses should be sent by e-mail, by 30 September 2003, to Will Naylor at HEFCE, w.naylor@hefce.ac.uk.

Skills training requirements for research students: joint statement by the Research Councils/AHRB

Introduction

The Research Councils and the Arts and Humanities Research Board (AHRB) play an important role in setting standards and identifying best practice in research training. This document sets out a joint statement of the skills that doctoral research students funded by the Research Councils/AHRB would be expected to develop during their research training. These skills may be present on commencement, explicitly taught, or developed during the course of the research. It is expected that different mechanisms will be used to support learning as appropriate, including self-direction, supervisor support and mentoring, departmental support, workshops, conferences, elective training courses, formally assessed courses and informal opportunities.

The Research Councils and the AHRB would also want to re-emphasise their belief that training in research skills and techniques is the key element in the development of a research student, and that PhD students are expected to make a substantial, original contribution to knowledge in their area, normally leading to published work. The development of wider employment-related skills should not detract from that core objective.

The purpose of this statement is to give a common view of the skills and experience of a typical research student, thereby providing universities with a clear and consistent message aimed at helping them to ensure that all research training is of the highest standard, across all disciplines. It is not the intention of this document to provide assessment criteria for research training.

It is expected that each Council/Board will have additional requirements specific to their field of interest and will continue to have their own measures for the evaluation of research training within institutions.

(A) Research skills and techniques – to be able to demonstrate:

1. The ability to recognise and validate problems.
2. Original, independent and critical thinking, and the ability to develop theoretical concepts.
3. A knowledge of recent advances within one's field and in related areas.
4. An understanding of relevant research methodologies and techniques and their appropriate application within one's research field.
5. The ability to critically analyse and evaluate one's findings and those of others.
6. An ability to summarise, document, report and reflect on progress.

(B) Research environment – to be able to:

1. Show a broad understanding of the context, at the national and international level, in which research takes place.
2. Demonstrate awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research, eg confidentiality, ethical issues, attribution, copyright, malpractice, ownership of data and the requirements of the Data Protection Act.
3. Demonstrate appreciation of standards of good research practice in their institution and/or discipline.
4. Understand relevant health and safety issues and demonstrate responsible working practices.
5. Understand the processes for funding and evaluation of research.
6. Justify the principles and experimental techniques used in one's own research.
7. Understand the process of academic or commercial exploitation of research results.

(C) Research management – to be able to:

1. Apply effective project management through the setting of research goals, intermediate milestones and prioritisation of activities.
2. Design and execute systems for the acquisition and collation of information through the effective use of appropriate resources and equipment.
3. Identify and access appropriate bibliographical resources, archives, and other sources of relevant information.
4. Use information technology appropriately for database management, recording and presenting information.

(D) Personal effectiveness – to be able to:

1. Demonstrate a willingness and ability to learn and acquire knowledge.
2. Be creative, innovative and original in one's approach to research.
3. Demonstrate flexibility and open-mindedness.
4. Demonstrate self-awareness and the ability to identify own training needs.
5. Demonstrate self-discipline, motivation, and thoroughness.
6. Recognise boundaries and draw upon/use sources of support as appropriate.
7. Show initiative, work independently and be self-reliant.

(E) Communication skills – to be able to:

1. Write clearly and in a style appropriate to purpose, eg progress reports, published documents, thesis.
2. Construct coherent arguments and articulate ideas clearly to a range of audiences, formally and informally through a variety of techniques.
3. Constructively defend research outcomes at seminars and viva examination.
4. Contribute to promoting the public understanding of one's research field.
5. Effectively support the learning of others when involved in teaching, mentoring or demonstrating activities.

(F) Networking and teamworking – to be able to:

1. Develop and maintain co-operative networks and working relationships with supervisors, colleagues and peers, within the institution and the wider research community.
2. Understand one's behaviours and impact on others when working in and contributing to the success of formal and informal teams.
3. Listen, give and receive feedback and respond perceptively to others.

(G) Career management – to be able to:

1. Appreciate the need for and show commitment to continued professional development.
2. Take ownership for and manage one's career progression, set realistic and achievable career goals, and identify and develop ways to improve employability.
3. Demonstrate an insight into the transferable nature of research skills to other work environments and the range of career opportunities within and outside academia.
4. Present one's skills, personal attributes and experiences through effective CVs, applications and interviews.