

Assessing the Doctorate and Defending the Thesis

Stuart Powell¹ and Howard Green²

Abstract

This paper takes information relating to doctoral examination, gathered by the authors as part of their survey of seventeen countries, and uses it to stimulate reflection on the processes and procedures that underpin the way in which such examination is carried out in the UK and in particular to related comments in the QAA Review of Research Degree Programmes (QAA, 2007). The paper discusses: the public dimension of doctoral assessment, the extent to which a typical UK viva is a final assessment, the ‘defence’ of a thesis and the purpose of amendments. Throughout, examples of practices outside the UK are given.

¹ Stuart Powell is a Senior Partner of Postgraduate Directions and Professor of Educational Psychology at the University of Hertfordshire.

² Professor Howard Green is a Senior Partner of Postgraduate Directions.

1. Introduction

1.1 Origins of the Paper

This paper examines some issues regarding examination that arose as we worked on a project with colleagues from seventeen countries from across the world (Powell and Green, 2007) and which we have considered here in this paper in the context of the publication of the outcomes of the QAA Review of Research Degree Programmes (QAA, 2007) as those outcomes relate to the examination process. Each country in our survey had been asked to describe, and comment critically upon, the situation with regard to various aspects of doctoral study in their respective countries, examination being one of these. It should be noted that they were not asked any specific questions relating to examination though they were given examples of the kinds of issues they might wish to address.

1.2 Systems Understanding and Policy Learning

Our purpose in this current paper is to examine current debates and challenges in doctoral examination that arise from the survey described above. In so doing we are aware of the risks that accompany any comparative analysis. Adopting Wolman's taxonomy of the elements of comparative study, (Wolman, 1993) we do not argue that the evidence will lead to the adoption by any one country of the approaches of others (policy transfer). Rather, we argue that a clearer understanding of our own parochial approaches may be gained and possibilities increased that we may develop new strategies through a better appreciation of how others operate, (systems understanding), and reflecting on these approaches (policy learning).

2. Outcomes of the QAA Review of Research Degree Programmes

2.1 The Precepts Relating to Assessment

The Report on the Review of Research Degree Programmes (QAA, 2007) contains a section on assessment in which reference is made to policies and procedures that institutions have in place for the examination of research students, in relation to precepts 22, 23 and 24 of the Code of Practice itself (QAA, 2004). These precepts refer to the kinds of criteria that define the doctoral standard (precept 22), the clarity of procedures and their rigorous, fair and consistent application (and their necessary inclusion of external review) (precept 23) and the clear communication of procedures to all parties concerned (precept 24).

2.2 A Doctoral Standard

The Framework for Higher Education Qualifications (FHEQ) (QAA, 2001) gives clear guidance as to what a successful doctoral candidate should be able to demonstrate at the time of assessment. But it does not distinguish in terms of level between the PhD and the 'other forms of doctorate', as are referred to in the QAA review, though it notes that different programme structures may apply. Our interest here is not with the process of learning so much as with the level or standard of doctorate and how that can be assessed in an examination situation. In our view, the QAA Review sidesteps the issue of criteria because they are already set down in the FHEQ and for the reasons given above. But some evidence suggests (e.g. Hartley and Fox, 2002; 2004; Hartley and Jory 2000; Tinkler and Jackson, 2000, 2002, 2004; Trafford, 2003) that the way in which some institutions, and perhaps more pertinently some individual examiners, are currently assessing against those criteria is not necessarily reasonable and appropriate, and certainly, many of the rules that operate may be hidden (Brause, 2000; Grix, 2001).

For example, if doctoral level is marked (a) by a candidate's ability to make a contribution to an intellectual field and (b) by indications that the candidate has the skills

and knowledge necessary to enable him/her to continue to make such contributions in an independent manner and in such a way as to be recognisable by others in the field (Green and Powell, 2005), then it would seem reasonable to expect that the candidate should be able to engage with all-comers in discursive debate about his/her work and its impact on the specific intellectual field and other related fields. By 'all-comers' here we mean a wider public than two or three peer assessors (see Shaw and Green, 2002, for an attempt at benchmarking the PhD.) Here, we are asserting the need for a 'wider public' on the basis of our own understanding that to be able to give evidence of the ability to sustain a contribution to a field necessarily requires engagement with a broad swathe of those working within the field rather than merely with two or three members of that field who may or may not be truly representative of it.

2.4 Some Questions that Arise

We identify below some questions about the situation in the UK that arise from our own project (Powell and Green, 2007) and a reading of the QAA review (QAA, 2007).

Clearly, the questions we have chosen represent our own interests and as such are selective – other questions might be pursued with equal validity; similarly our questions do not represent experiences of doctoral examination based on any particular institutions, rather they are based on our reflections on the current situation as influenced by involvement in many workshops and seminars on doctoral examining as well as by the project already mentioned.

- (i) Why is doctoral examination typically a closed affair with only a limited number of examiners present and no real opportunity for the candidate to present, on a public stage, their credentials as a 'doctor'?
- (ii) When we talk about a 'final assessment' just how much assessment has preceded it (Phillips, 1994)?
- (iii) Is it safe to assume that the kind of questioning that goes on in such closed situations, that is where the candidate has no necessary right to state his/her thesis before defending it (Powell and McCauley 2002; 2003), is an appropriate way of assessing against the stated criteria?

- (iv) Is it appropriate that examiners do not have to make their criticisms public before questioning the candidate upon them (or indeed, in many cases, after questioning) (Tinkler and Jackson, 2004,)?
- (v) What is the justification for indicating (as is typically the case in UK examinations) that the candidate has passed the assessment against the criteria, yet this 'pass' (in, again, the final assessment) is subject to the completion of extensive amendments (usually to the satisfaction of one or other of the examiners) to the written submission before 'it' can be accepted (Murray, 2003; Pearce, 2005)?

3. Critique of these Questions

We consider each of these questions in turn and set them in the context of examples from our survey of doctoral examination practices in seventeen countries. Again, we should stress that these examples are not necessarily of 'good practice'; we are not here providing any evidence that might validate such a suggestion. Rather, what we are suggesting is that the examples may provoke the UK sector to reconsider its own current practices and to seek evidence to justify them. We argue that such reconsideration is timely given the organic way the system in the UK has evolved and the new context of the QAA revised Code.

3.1 Public Nature of the Examination Process (question i refers)

The prevailing private nature of the examination process in the UK (Wallace and Marsh, 2001) must be wholly inappropriate where ability to publicly declaim and defend an intellectual position is paramount (and our suggestion in this paper is precisely that the core notion of 'being a doctor' rather being a very proficient technician or professional is inseparably tied in with the notion of being able to independently establish, explain and defend an intellectual position that informs one's audience in a worthwhile way).

In many countries across our sample the overall concept of the examination of a doctoral candidate includes the notion that the defence of the submission should be

undertaken in a way that is open to public scrutiny, indeed public defence is the norm rather than the exception. Some examples are given in Box 1.

Box 1

- In **India** the viva-voce examination may be open to all and candidates may be questioned by any one of them.
- In **Denmark** the dissertation has to be published and defended publicly.
- In **France** the defence of the doctoral thesis takes place in public, in front of a jury composed of the two referees, the supervisor and other experts. At the end of the defence, the jury awards the candidate the grade of Doctor of the University, after *in camera* deliberation.
- In **Germany** a date for the defence is set up when the referees have reviewed the submitted work. A defence is always a public affair to which anyone who is interested can come.
- In the **Netherlands the examination takes place in** an open meeting with attendant ceremony, the candidate will then defend the thesis before the public.
- In the **USA** there will be an examination committee of five professors. The dissertation must be approved by at least by three of these committee members and is most often defended publicly.

So, while what is meant by 'public defence' (e.g. who qualifies to attend) and the way in which the defence is conducted (e.g. the nature of the interrogation and the roles of the various participants and protagonists) may vary across countries, there is a general sense across the majority of the countries sampled that the scrutiny of the work should be conducted in a public rather than a private forum. Indeed, we would argue that going public in one's claims and one's defence of them is an integral part of the metamorphosis from acolyte to master, from student to doctor, from being engaged in learning about subjects to creating new understandings about them (albeit based on one's own learning) (Powell, 1999; Rugg & Petre, 2004).

This, of course, is not the situation in the majority of UK institutions nor indeed is it universal practice in Australia and Canada. In Australia, an oral defence of the

submitted doctoral work is rarely required of candidates; however, a public presentation of their work before academic colleagues from within and often beyond their department is normally expected or required. This presentation usually occurs prior to final submission, thus providing an opportunity for collegial commentary and critique, and for verification of the student's 'ownership' of the work (Evans, 2007). In the UK the majority of universities, in our experience, operate the examination of the doctorate in a way that is not open to those beyond the immediate examining and supervising teams and to the awarding Committee. The most common custom and practice is for the oral to take place in private; and where individuals other than examiners and candidates *are* allowed to be present then there are usually strict rules about who may attend and what they may do when in attendance (e.g. many universities allow supervisors to attend but not to speak unless invited by the examiners).

What is important to note here is that the linked notions of defence and of prior assessment of progress and 'contribution made' are most strongly evident in those countries where the *viva voce* is public. Indeed our use here of the term *viva voce* may be misleading (though it is the term used by some contributors to our survey) in as much as what many countries do is to have a process of assessment that precedes the 'defence'. Indeed, in many countries the defence cannot take place until the dissertation has been assessed as suitable for public defence (see for example, Juchacz and Kwiek, 2007). This point is revisited in the next section of this paper.

3.2 How Final is Final Assessment? (question ii refers)

3.2.1 Prejudging Work to be Submitted

There is no pressure in any QAA document relating to research degrees to pre-assess, predetermine or prejudge a candidate's work before it is submitted for final examination and defence. Of course there is much mention in the Code and in the Review of the need to assess progress through a programme of study, but this falls short of assessing the final written product (the submission) before it is defended. Yet this latter approach is the one

taken by many other countries. Many of the countries that we sampled have rigorous assessment regimes that predate the final defence and indeed predetermine whether or not it will take place (of course we should note here that the difference is, in many ways, in the notion of assessment and defence as separate processes). Some examples are given in Box 2.

Box 2

- In **China**, before reaching the examination stage, a candidate must demonstrate that he/she has: a) completed all the compulsory taught modules; b) undertaken all the relevant research deemed necessary to complete the PhD programme; c) published at least three pieces of work based on the research in recognised academic journals and d) completed the thesis to the required standard.
- In the **Netherlands** the examination procedure starts with the composition of a Doctoral Committee that evaluates the thesis and decides whether or not the candidate may be permitted to defend the thesis.
- In **France** the candidate and supervisor put forward a proposition that, if approved by the Director of the doctoral school, is considered by the so-called 'Committee of Theses'. This Committee then designates two referees, from among senior scientists awarded a 'Habilitation to supervise research' or equivalent outside the doctoral school and the grading university. On the basis of the referees' reports, the Committee allows, or not, the defence to take place.
- In **Poland**, usually during the second or third year of doctoral studies, the candidate officially opens his/her doctorate procedure in the front of the Scientific Council of the Faculty or sometimes of the Department. The presentation is followed by questioning and discussion, after which the Council votes on the opening of the doctorate. If the vote is positive then the Council designates a professor conferring a degree who has to have a certain rank; it then usually designates from its members a Doctorate Commission (approximately six to seven professors), and decides on the names of three examiners for the three obligatory doctoral exams (in the doctorate subject, in related subject chosen by the candidate from the established list, and in a foreign language). When the doctoral

thesis is ready and has been accepted by the doctoral supervisor and all three doctoral exams are already passed, a Doctorate Commission accepts it and proposes to the Scientific Council the closing of the doctorate and the designation of two reviewers. The Scientific Council votes the closing of the doctorate and - if positive - designates two specialists in the field of doctorate as reviewers. When the Doctorate Commission receives two positive reviews and accepts them, it recommends to the Scientific Council the acceptance of the doctorate thesis and then arranges a date for the public defence of the doctorate thesis.

3.2.2 Assessment and Subsequent Defence of the Assessed

In our experience, in the UK institutional regulations speak typically of a candidate needing to defend his/her thesis (Powell and McCauley, 2003); yet when the examination takes place the examiners are, in reality, tasked with trying to work out if the candidate has presented enough evidence to demonstrate that he/she has met the criteria for the award as laid down by the institution (Mullins and Kiley, 2002). The examiners are therefore in a position where they seek to assess against criteria and need to do so in the context of an oral question and defence session. The question remains as to whether or not all the criteria are best assessed within such a context.

Significantly these criteria differ across UK institutions (though they may well all relate to the FHEQ as is suggested in the QAA review and most will share common features) and this means that the examiner should be marking against local criteria, not against what they might think 'being a doctor' is all about (Denicolo, 2003; Jackson and Tinkler, 2001). The examiners try to do this on the basis of a reading of the submitted work and a subsequent questioning of the candidate (Morley et al. 2002; Wallace and Marsh, 2001), yet in most of the countries we sampled, justification for gaining the award and then defence of the thesis are separated out as two distinct acts, as can be seen in the examples cited in Box 3. Certainly the candidate has to 'pass' both, but the defence is a matter of showing that he/she can defend the work *after* it has been assessed. In the UK the two

acts are merged and we suggest muddled in the process of this merger. Candidates may fail at the final stage in the UK where they might not elsewhere because they are being assessed against the criteria, in some cases, formally for the first time; in short, there may well have been no formal prior judgment of the final submission – though many will argue that there tend to be informal opportunities for feedback in relation to those criteria (Baldacchino, 1995; Trafford and Leshem, 2002).

3.3 The Candidate's Right to State His/Her Thesis (question iii refers)

A candidate should have the right to set out orally what he/she asserts to be the intellectual position that is to be defended before any oral evaluation of it. This may seem a trivial matter compared to some of the issues relating to examination of the doctorate. But it is a central pillar of the notion of defence; that is, the need and the right to state one's case, to set out the proposition(s) that one wishes to defend. Certainly many supervisors in the UK will see 'setting out one's thesis' as the prime objective in the writing of a doctoral dissertation and many will have struggled to get their students to complete the task satisfactorily (Wisker, 2005). Yet many examiners will have experienced a difficulty in ascertaining, from the written submission, just what thesis the candidate is seeking to propose and hence defend (see for example Grabbe, 2003). Therefore, while it is clear that the thesis should be set out in the written submission, in our view it is also the case that for the questioning and answering that comprises a viva to have substance and direction it needs to be prefaced by an oral presentation of the case that the candidate wishes to make. Certainly, some UK institutions allow for such a presentation in their custom and practice but, in our experience, few require it and few interpret it as a right of the candidate (which is our own view). Some practices in this respect, from our survey, are noted in Box 3.

Box 3

- In **France** the candidate gives an initial talk on his research results, which is followed by a discussion with the jury about a range of topics regarding the work for example: the results, the justification of the research strategy adopted, possible alternative approaches, the broader intellectual context and literature, further developments of the work.
- In **Poland** usually during the second or third year of doctoral studies, at the opening of the doctorate procedure, the candidate proposes the theme of his/her doctorate and presents its main thesis in a speech of approximately ten minutes in the front of the Scientific Council of the Faculty . This presentation is followed by questioning by professors who are members of the Council. After discussion, the Council votes about the opening of the doctorate (this precedes the formal assessment of the work and the ultimate defence).
- In **Germany** at the public defence the candidate will present his or her thesis and offer a defence in the context of he referees' reviews that he/she will already have seen.
- In **Mexico** the defence invariably begins with a public declamation of the thesis by candidate.
- In **Thailand** the candidate is required to make an oral presentation of his/her key findings and the thesis that they support before the defence begins.

3.4 Examiners' Reports need to be made Public before the Oral Defence (question iv refers)

If the oral examination is to get to the heart of the matter then the basis upon which the examiners make their judgements (i.e. the detail of their criticisms) need to be available publicly if the risk of partial or prejudiced critique is to be avoided.

This is the case in some other countries and two examples are given in Box 4.

Box 4

- In **Germany** a ‘defence commission’ is appointed, normally this comprises a group of four professors two of whom are from the department in which the thesis has been submitted while the other two can be from another department, another university or from abroad. Among the four are always the two referees of the thesis. The defence is a public event though interaction is only between the candidate and the commission members. The candidate, who will have been given the reviews of the two referees before the viva itself will offer a defence of the thesis with reference to criticisms made in the reviews.
- In **Denmark** the dissertation is assessed by a committee consisting of three academics. It would normally be expected that the committee writes a fairly extensive evaluation of the dissertation giving a summary of results and stating any criticisms of research processes undertaken or interpretations made; the defence proceeds on the basis of this evaluation. If the committee finds the dissertation unacceptable then the institution may recommend that the research findings and/or presentation should be reworked and then evaluated by the same committee. Indeed, if revisions are deemed to be substantial then it would have to be evaluated by a new committee. The committee can also simply reject the dissertation.

The practices exemplified here contrast significantly with the way in which institutions in the UK typically operate, where confidentiality rather than openness are often taken as paramount, indeed where it is only the advent of the Data Protection Act that is forcing many UK institutions to reconsider their position vis a vis keeping reports confidential (Brown and Powell, in press). In our view, there is much merit in giving to the candidate, examiners’ reviews of their work before the defence because, again, what is necessary is that they should be required to defend their theses against criticisms and to do this it is reasonable that they should see those criticisms set down in as public a way as is possible. Of course, we recognise that there are arguments against such openness, not least that having access to reports prior to the viva itself, changes radically the nature of any ‘testing’ of candidates in terms of their abilities to respond to criticisms in an unprepared way and to hence to ‘think on their feet’. However, our argument here is that

the UK sector might usefully reflect upon its typical practices in terms of what they are intended to achieve and what their real outcomes are and to consider what alternatives might offer.

3.5 What is the Point of Amendments? (question v refers)

If the examination of the doctorate ends with substantial amendments to the submitted work (typically UK universities may award the degree ‘subject to’ the stated amendments being completed to the satisfaction of the nominated examiners or the supervisor) then a dispassionate observer might conclude that while candidates have, in this instance, failed to provide written evidence that they have met the doctoral criteria at the point of assessment they are told what they have done incorrectly or have failed to do and told how to rectify the matter. This telling of candidates what they have done wrong and what they need to do to rectify the situation does not seem to us to match up to the notion of a successful candidate who is being accepted as a peer into an elite group (the doctoral) that is defined by the safety of its judgement-making and the effectiveness of its management of an intellectual domain. This is not to say, of course, that those at doctoral level are above reproach or debate but rather that if the award is a threshold award then what is needed is proof that the candidate is ‘above the line’ not that one piece of work that they have produced at one moment in time can be fine tuned in its literary quality to the required level or indeed that the candidate can step over the line by producing one more set of research findings. The intellectual position that the candidate has set out (that is, in our terms, his/her thesis), and his/her ability to defend it are not things that can be reduced to minor matters of presentation or to requiring a ‘little more’ by way of evidence. In short, we would argue that the position and its defence either meet the criteria or they do not. In our view, the rigour of the pass/fail standard of the award is prejudiced by the use of amendments, which all too often become devices to ameliorate the mediocre (Powell and Green, 2007).

It is also perhaps noteworthy that countries where the totality of assessment processes at doctoral level may be interpreted as less onerous (that is, in terms of prior assessment and public rigour of examination) are those where, typically, candidates are

required to make amendments to their submitted dissertations to bring them up to the desired standards. In contrast, in those countries where processes that precede the oral defence are extensive and where publication is a part of those processes, then amendments are less likely to be required or are never required at all (see for example, Jensen, 2007; Bartelse et al 2007); here candidates stand or fall on the colours that they pin, sometimes literally, to the mast. See Box 5 for examples of this contrasting approach to amendments.

Box 5

So, on the one hand:

- In **Australia** the Chair of Examiners reviews the examiners' reports before the university committee with responsibility for such matters determines on the outcome. Usually candidates are required to make some amendments to the thesis to bring it to the required high standard before the university confers the degree.

Whereas:

- In **Finland**, it is normal practice that no amendments would be required to the final [defended] submission. It is treated as 'published'.
- In **Denmark** the main result of a period of doctoral study is the dissertation. This can be a monograph – typically of between 150 and 250 pages – or a collection of published papers (or those accepted for publication) as well as a summary that provides a synthesis of the underpinning thesis. Once it has been submitted for the Defence it is treated as final and hence not liable to amendment.
- In **Poland** the public defence of the thesis takes place in the front of the members of a specially convened Commission. At the end of the defence, the Commission votes to recommend acceptance. If affirmative it recommends to the Scientific Council that the doctoral degree be awarded. Subsequently, during a closed session of the Scientific Council, the recommendation is voted upon and if confirmed then the Council confers a doctoral degree. This conferment of the degree takes effect immediately hence the issue of amendments does not arise.
- In **Japan** students will have been successful in the presentation of an 'intermediate paper' before they even begin to write up a doctoral thesis. Then if

the supervisor thinks the thesis is strong enough small committee to deal with the final examination is organised by agreement within the graduate school. Then, the final examination is carried out by the examination team composed of the supervisor and other professors. If the defence is successful then the PhD is granted. There is no category of award 'with amendments'.

4. Conclusion

We have questioned doctoral examination as a closed affair where candidates have no necessary right or responsibility to present their theses on a public stage and subsequently defend their position against all-comers and thus publicly establish their credentials as doctors and where examiners are not required to publish, and subsequently stand by, their criticisms of the doctoral candidate's thesis. We have argued that current common procedures in the UK conflate and thereby confuse assessment on the one hand and the defence of a thesis on the other; in this argument we have looked at the role of assessment as a process that may rightfully be located prior to, and distinct from, the process of defending the thesis. Finally, we have reflected upon the concept of 'passing with amendments'.

In all of this we have resisted seeking to establish a new model for best practice in doctoral examination but we have suggested that, rather than restricting discussion to the extent to which UK universities do what their regulations say that they should do (though we recognize some intrinsic value in that exercise itself) it might be helpful to debate just what such regulations imply about the core purposes of doctoral education and its assessment. We accept that in this paper we have not always set out balanced arguments with all effects of our suggestions carefully weighed – this was not our intention; rather we have set out questions that intended to provoke debate.

In short, we suggest that those working in the UK sector might usefully ask: (a) how do we recognize a doctor when we see one, (b) what kinds of evidence enable us to test out that recognition in a formal way that ensures that a standard is being applied and

(c) what is the appropriate context for testing the evidence that assures the recognition? We suggest that, as a starting point, the key criterion here is the 'making of a contribution' and that focusing upon it enables a surer grasp on answers to these three, related, questions.

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Biographies

Stuart Powell is Professor of Educational Psychology at the University of Hertfordshire and is also Honorary Secretary of the UK Council for Graduate Education (UKCGE). He and Howard Green co-authored a book on Doctoral Study in Contemporary Higher Education (Open University Press/SRHE) and have a book on the 'Doctorate Worldwide' to be published in June 2007.

Professor Howard Green has held the positions of PVC at Staffordshire University, Dean of the Staffordshire Graduate School and Head of Research Development at Leeds Metropolitan University. In addition, he set up and chaired until 2003 the Modern Universities Research Group and between 2000 and 2006 was Chair of the UK Council for Graduate Education (UKCGE). He is currently a Senior Partner of 'Postgraduate Directions' (www.postgraduatedirections.org.uk)