



RESEARCH DEGREE EXAMINING - COMMON PRINCIPLES AND DIVERGENT PRACTICES

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Abstract: This paper reports on discussions that took place at a specialist seminar on research degree examining organised by the UK Council for Graduate Education in July 2000 and at subsequent dissemination workshops at various venues in the UK. The processes and procedures of research degree examination in the UK are debated in terms of variations in practice that exist along with principles that signal a common identity. The discussion takes account of the effects of developments in, for example, professional doctorates and the PhD by published work and on perceptions of the 'traditional' examination. Issues addressed include: the composition of PhD examining panels and the roles of individual examiners within those panels; the training and qualification of examiners; the purpose and nature of the oral examination; the tension between examination of the process of training and that of the 'finished product' (which the thesis may be seen to represent). The paper argues for the need for more transparency about examination processes, for challenge to common assumptions and for a refocusing on research degree examination as a process of assessment.

1. OVERVIEW

Discussions at various national seminars have indicated that institutional practices concerning research degree examination vary significantly across the sector. It was also noted that some issues relating to this variation may be largely outside the remit of the current *QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Postgraduate Research Programmes*. It also became clear that the issue of thresholds may be contentious when applied to research degree examining and indeed that current notions of assessment may be inadequate when applied to practice with regard to the examination of theses (e.g. the QAA definition of assessment includes, 'enables students to

obtain feedback...and helps them improve their performance'). The notion of the viva was particularly problematic in discussions. It was noted that in many European countries the viva was a matter of public defence and part of a ritual 'welcoming into the Guild' - in the UK it tended to have a range of functions, some overt but others remaining covert. One area of consensus was that there is a need to focus on the process of research degree examination as a form of assessment; for example, it was suggested that other aspects of the process such as 'rite of passage' sometimes obscure this function.

For the purposes of this paper issues discussed are grouped under three headings: (i) Research Degree Examination as Assessment (ii) Examiners and Examining Panels and (iii) Assessment in Differing Doctoral Contexts. In each case the original issues as set out in the briefing paper that preceded the Specialist Seminar are noted - these issues are followed by the key questions that were discussed and finally the main points of the subsequent discussion are summarised.

2. RESEARCH DEGREE EXAMINATION AS ASSESSMENT

2.1 Setting out the Issues - Research Degree Examination as Assessment

Research degree examination is frequently seen in a different light to other aspects of examining in higher education. It has developed its own custom and practice and mystique with the viva or oral examination taking on significance, particularly for the candidate, which has taken it some way from being an assessment of performance of research outcomes.

We might usefully reflect on what we mean by assessment and ask whether the PhD examination stands scrutiny as a form of assessment. The QAA's definition of assessment will suffice to challenge us in our approach to PhD examination.

"Assessment is a generic term for a set of processes that measure the outcomes of students' learning, in terms of knowledge acquired, understanding developed, and skills gained. It serves many purposes. Assessment provides the means by which students are graded, passed or fail. It provides the basis for decisions on whether a student is ready to proceed, to qualify for an award or to demonstrate competence to practise. It enables students to obtain feedback on their learning and helps them improve their performance. It enables staff to evaluate the effectiveness of their teaching." (QAA: Code of practice quality and standards in Higher Education, Assessment of students.)

Additionally, we may wish to question the elements of the assessment, as most if not all documents and artefacts submitted for assessment will contain the words 'submitted in partial fulfilment of the requirements.....' If the document or artefact is part of the submission for examination, what is the other part? What is the relationship between the two or possibly more than two parts, in terms of weighting? Does the candidate have to pass both parts in order to be awarded the degree? And, most importantly, where are any of these questions answered in institutional regulations?

2.1.1 Necessity of Oral Examination

Institutions vary in their stance with regard to the obligatory nature of the viva, with some insisting on it being held regardless of perceived qualities in the thesis and others offering various kinds of dispensation (e.g. 'where no useful purpose would be served'). In one sense at least, attitude to the necessity for an oral defence relates to the underlying perception of whether the examination is of the thesis or the process of research training (see *'Examination of Process of Training or Finished Product'*). A product might be examined in the absence of its author whereas to judge the outcomes of a process of training requires some questioning of the individual who has been trained.

2.1.2 Role of Supervisors in the Oral Examination

There is wide variation in practice over whether or not a supervisor should be present at the oral examination and their role if they are allowed/encouraged to be present. In some institutions where supervisors may be present they are only invited at the discretion of the examiners while in others only at the discretion of the candidate and again in others they may be required to be available on request but normally not be expected to attend. In some institutions attendance requirements or restrictions relate only to the principal, or first, supervisor. Contribution of supervisors during the examination varies between (a) being expected to speak (b) being allowed to intellectual community.

speak but only at the request/discretion of the examiners. Commonly the supervisor's unspoken role is that of acting as 'candidate's friend'.

2.1.3 The Viva Made Public

Few institutions make the viva a public event, though some departments claim openness within certain categories of staff. The merits and demerits of public defence are rarely discussed within institutions. Practice in other countries differs greatly from that in the UK. It may be argued that practice in the UK needs to be debated in the context of potential increasing European convergence. Clearly, differences in current UK practice relate in large part to differences in the kind and quantity of research training and research activity seen as necessary for the award of PhD and subsequently to differences in the bases for assessment. (This area is explored in Powell, 1999.)

2.1.4 Video Conferencing

There are now possibilities for making the viva a more flexible event by means of video conferencing. There may however be issues arising from the use of technology in this way within the process of assessment. For example, there may be issues of confidentiality.

2.1.5 Assessment Criteria

There appears to be little consistency in terms of the level or kind of guidance that is given to examiners on criteria for assessing submissions. Many institutions cite the need for criteria such as originality and publishability detailed checklists of criteria for assessing theses are not in evidence. (This area is explored in Shaw and Green, 1996.) This kind of variation reflects the underlying lack of clarity about threshold markers that might define differences between degrees at Masters (e.g. MRes), MPhil and PhD levels. Also, there is lack of clarity concerning any weighting that might be given to different components within a thesis and to different aspects of the examination. For example, should any critical self-appraisal be allowed to compensate for poor research design?

2.1.6 Purpose of the Viva

There is lack of clarity about the purpose of the viva. For example, if the viva is intended to be an examination in the broadest sense of the term or merely a verification of authenticity. Indeed, in reality many vivas seem to become effectively opportunities to fine-tune the written work of the candidate in order that it reaches a notional standard acceptable for scrutiny by the wider

2.1.7 Examination of Process of Training or Finished Product

Differing examiners' views indicate a tension in the PhD examination over the extent to which it is the process of research training or the finished product that should be examined. Different views in this respect will lead to differences in notions of the way in which the viva ought to proceed and indeed the breadth of the remit given to examiners. For example, should examiners be: (a) able to 'explore records of research supervision' (CVCP, 1993) or other documents such as progression or transfer reports; (b) asked to comment on quality of supervision, training opportunities and facilities provided by Departments (seen in the BPS document (UCoSDA/BPS, 1995) as '*an important subsidiary role of the examination board*'); (c) have access to a candidate's critical self-appraisal of their own learning as well of the research findings and interpretations?

2.2 Setting out the Key Questions - Research Degree Examination as Assessment

The key questions in TABLE 1 were compiled from the general issues noted above.

TABLE 1.

What is Being Assessed?

When assessing at research degree level – is it the candidate (i.e. the sum total of the learning outcomes for the individual (including perhaps any such outcomes from generic training)) or the substantive nature of any contribution to knowledge (i.e. as expressed in the thesis) that is being assessed?

Who is Being Assessed?

Should a judgement be made as to the quality of supervision that has led to the submission and if so could 'negligent supervision' (CVCP, 1993) influence decisions when awarding the degree? Should judgements be made by the examiners about overall provision within the institution (e.g. of resources and training opportunities for students)?

Are there Identifiable (and Usable) Assessment Criteria for PhD?

What might such criteria be? Should criteria for the award of PhD be made explicit? Should different criteria for different parts of the thesis and/or the examination be weighted? Should such criteria be made available to all students? What might count as 'publishability' (but see below)? How Should the Assessment be Conducted? Is a viva necessary for effective assessment of a PhD? Is more than one examiner necessary? What is the role of supervisors in the examination process?

2.3 Summary of Discussion on Research Degree Examination as Assessment

2.3.1 Status and Nature of the Viva and the Thesis

The thesis was seen to be prioritised as the medium for assessment. It was felt that the viva as currently operated in the UK could not function adequately as a means of reflecting the student's expertise accurately enough for judgement to be made and therefore the student's individual learning was seen to be secondary. It is then the thesis that is assessed, though discussants did

claim that examiners were making judgements about the candidate on the basis of what was presented in the thesis.

There was general agreement that the viva should be an area for learning for all concerned. But there was recognition that it generally functioned as a means of 'polishing' the thesis and tuning the clarity of the contribution to knowledge and overall literal quality of the written work. Throughout the various discussion groups noted at the start of this paper there was an emerging consensus that the learning opportunities offered for all participants by research degree examination were not regularly pursued to full advantage. Certainly there was little evidence of the process of examination being reflected upon in any formal sense nor was evaluative feedback on the process regularly obtained.

It was felt by many that the nature of the viva depends on the nature of the thesis. Some colleagues felt that if the document was strong then the viva functioned as a summative process whereby the examiner would sum up the strengths of the thesis and discuss post-doctoral progression. If on the other hand, the document was felt to be failing then the viva functioned as a formative process

whereby the examiner would inform the students of the weaknesses that would lead to resubmission and possible re-examination. Time would then be spent on giving formative guidance on what is required to amend current failings. We should note here that the converse view was also expressed, namely that the function is summative when the thesis fails - the examiner is making a judgement - and formative when it is successful - the examiner is considering progression beyond the PhD and into the academic community.

The view was expressed that the viva should function as a way of assessing whether students have

integrated key research skills and understanding of methodology as a result of research training. This was seen as a new aspect of the modern PhD along with other value-added aspects such as the importance of a PhD resulting in a new product or innovation.

2.3.2 Monitoring and Evaluation of Process

There was a suggestion from some discussion groups that the final examination of a PhD could be informed by various points in the process such as a first year or transfer/upgrading report. Some colleagues felt that examiners should have access to these earlier reports. Again, opinions were divided along similar fault lines to those that existed in the 'teacherly – confrontational' debate (see 'Role of the Examiner' section in this paper). There was general agreement that a satisfactory assessment process was likely when each assessment point during a student's progress acted clearly as a device to keep the student on track. In particular, the upgrading process should not be seen as an automatic progression to PhD status. In short, it was generally agreed that there should be delineated points in the process of a research degree programme which indicate if the student is likely to complete or fail and that a more rigorous evaluation of the process would affect the type of viva and ratio of pass/fails

As already noted there was some strong support for the notion that the same examining panel should examine throughout the process of a programme of study and at the final thesis stage. In this sense the examination of the final thesis was seen as a synoptic assessment of a complete process. This was seen as analogous with assessments of taught postgraduate courses where examiners might have access to records indicating the whole of the progress of an individual student through a programme of study.

There was some agreement, though not unanimous, for the notion that a report should be included at the end of the process (i.e. at the final examination stage) which describes 'special measures' encountered and perhaps overcome successfully during the research process.

2.3.3 What or Who is Being Assessed?

It was generally agreed that it is more than the written word that it being examined. It should be the case that the key skills reflected by the work are being judged and therefore the student him/herself is the real point of scrutiny. Examiners should be asking themselves – has this student integrated key skills and understanding? The viva is supposedly the most satisfactory place to investigate this, yet this point of focus is often lost as the marking of the thesis and the viva, as already noted,

become contexts for checking text and improving literary qualities.

Special mention was made of theses that should in one sense be valued 'in their own part of the academy' but where this is problematic when the work is genuinely interdisciplinary – an area which is growing. Indeed, one key area of potential difficulty was identified as the nomination of an examination team that could properly and fairly examine a thesis that crosses disciplinary boundaries and thus employs constructs and methodologies that may not be universally recognised.

2.3.4 Assessment Criteria

It was generally agreed that criteria might be difficult to standardise across HEIs and that in any case such standardisation would not necessarily be desirable. But it was also argued strongly that there was a need for more transparency. At present the situation across the sector is not only varied but it is also opaque. This makes quality auditing a difficult exercise and disadvantages the student who may enter an assessment scenario unaware of hidden agenda in operation.

The notions of 'publishability', 'original and significant contribution to knowledge' etc. (which are commonplace criteria use by institutions) often depend on a number of factors and are linked to discipline. It is usual that there is currently no agreement necessary between examiners with regard to criteria – by default decisions are therefore based on implicit criteria, which may remain idiosyncratic to individual examiners.

Some seminar attendees made the argument for 'threshold' levels for criteria rather than standardisation and it was generally agreed that there should not be subclasses for PhDs. It was generally agreed that the PhD is a 'threshold' qualification.

A summary of some of the key issues in this section on Research Degree Examination as Assessment is set out in Appendix 2. What is clear from the table in that Appendix is that the variation in terms of function, status, mode etc. permeates the process of doing research degree level work, the assessment of the finished product(s) of that work and the use of oral examining as part of that assessment.

3. EXAMINERS AND EXAMINING PANELS

3.1 Setting out of Issues Surrounding Examiners and Examining Panels

3.1.1 Composition of Examination Panels

Different notions of what is being examined and how examinations should be carried out lead to different notions of the composition of panels. Some institutions have an independent Chair of PhD examination panels – many do not. Sometimes a senior, internal member of staff, not necessarily possessing subject expertise, acts with a brief to ensure the good conduct of the examination process and the dissemination of good practice. Institutions differ in the extent to which they allow or encourage assessors at any progression stage to become examiners at the final assessment stage. Some institutions routinely appoint two examiners – one internal and one external – other institutions and many outside the UK routinely appoint three examiners. Institutions vary in whether or not they require that an examiner should have a PhD him/herself.

The question has been raised as to whether or not the external examiner should "*comment on the remainder of the examination board*" (UCoSDA/BPS, 1995). Finally, the extent and nature of any student input into the appointment of the examining team differs.

3.1.2 Status of Individual Examiners

In the CVCP document 'Handbook for External Examiners in Higher Education' (TLTP Project Alter, 1993) it is stated that "*an external examiner of a PhD is the examiner. He or she decides whether the thesis passes or fails*" (their bold type). This is a view held in some universities but not in others. In some the external examiner overtly holds the key vote whereas in others all examiners are equal (though again some may be more equal than others). Clearly, the role of the internal examiner is defined in relation to that given to the external.

3.1.3 Nomination of Examiners to Panels

Procedures for nominating examiners, and the mechanisms that enable institutions to monitor them, are important if independent and fair assessment is to be achieved (see for example, the QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Postgraduate Research Programmes. (10a) – *the mechanisms used for communicating procedures relating to the nomination of examiners*). Yet there seems to be little consistency in practice. Certainly most institutions take particular care over this phase of the administration of research degree examination.

3.1.4 Training and Qualification of Examiners

Many institutions do not train examiners yet most workshop attendees thought of the process as complex and important enough for some minimal training to be desirable. UCoSDA/BPS (1995) suggest that "*an external examiner should possess a PhD or other evidence of a similar level of scholarship and should normally have been principal supervisor of at least one successful PhD student*". This recommendation contains considerable latitude (*other evidence, normally, at least*); this may not matter but the issue of just what is expected of an examiner remains. The relationship between examining, scholarship and supervising might usefully be explored further. Many institutions require an examining team to have experience of examining but are less concerned to consider supervisory experience, presumably on the grounds that these two activities are discrete.

3.2 SETTING OUT OF KEY QUESTIONS

The key questions set out in TABLE 2 were derived from the issues above:

TABLE 2

- What are the qualifications and experience required of an individual examiner?
- Should examiners be trained?
- How should external scrutiny function within the assessment?
- How should an examining panel be nominated?
- Should the process of examination be monitored/evaluated?
- Should any one examiner have the casting vote?
- Should the student have any role in the process of determining panels?

3.3 Summary of Discussion on Examiners and examining panel

3.3.1 Experience/Qualifications of the Examiner

It was generally agreed during the various workshops that examiners only gain experience of examining by examining but that training would help to bridge the gap between novice and expert. It was also felt by some attendees that examiners should have a record of successful supervision. The grounds cited were that to pass judgement on the outcomes of research degree study it is necessary understand the process of that study and in turn it is therefore necessary to understand the relationship between supervisor, student and project. Examiners should therefore be trained to understand the formative nature of supervision and the relationship between that supervision, individual student achievement and tangible research outcomes.

But it was also noted that there is no nationally recognised forum for exploring the issues of examiner training across the UK although several universities now offer training to their own staff on the role of the examination in the PhD. It was also noted that there are limits to what can be expected of examiners given the level of remuneration and the level of work involved.

While it was agreed that the examination should act as a learning process for examiners, as noted elsewhere in this paper, it was also recognised that a context needed to develop in which examiners could reflect and develop their learning. For many colleagues this did not exist at present.

3.3.2 Role of the Examiner

There was a general consensus in the workshops that while examining should be seen as a 'role', all too often examiners are chosen for their individual specialism and expertise in the field. As a 'role', the notion of examiner training could therefore be better explored and hence understood. The issue of 'super examiners' who can step outside their particular ideology/specialism to judge scholarly work was raised. There was some debate about

whether or not it was practical to make use of an independent chairperson in this respect and it was suggested by some that the burden on particular individuals might become onerous if this latter scenario were to develop.

It was generally agreed that examining should not be driven by individual examiner's own personal research agenda and examiners must be aware that other ideologies and methodologies exist outside their own and must not be swayed into failing a thesis purely on the basis of 'personal conviction/passion'.

Some colleagues conceptualised the role of examiner as either 'teacherly' or 'confrontational'. In the first instance the notion of 'role' is highlighted and examiners of this type act as positive gatekeepers allowing access into the research community. In the second instance the notion of the individual is highlighted and the role is one of negative gatekeeping: keeping people out of the research community; disallowing those students who do not share the same ideology/methodology and passions. Along with this negative gatekeeping went the notion that some examiners use the examination process, consciously or otherwise, as a chance for 'settling old scores'.

Notions of using the individual who judged the progress of the work at a transfer (or progression or upgrading) stage as an examiner at the final examination stage varied along with the view taken of gatekeeping role. Those who saw the role as a teacherly one tended to

see the role of formative assessor as positive and as compatible with that of final assessor. Conversely, those with a more confrontational view tended to see a need for the examination at the final stage as needing to be 'blind' to processes that had gone before. Judgements here were to be made on the final product only. Roles fit with 'assessment of process' (teacherly) or 'examination on the day as single event' (confrontational).

Most attendees agreed that examiners need to be informed about the work they are examining and understand the approach used even if they do not practice it themselves. It was clear that problems were likely to arise where the examiner had not been made fully aware at the time of appointment as to the nature of the substantive content of the thesis or the procedures and methods employed in the study. The usefulness of briefing the potential examiners by giving them access to an abstract (or similar) of the thesis was suggested.

Views on the remit that should be given to examiners tended to be constrained by a recognition that remuneration levels are already either poor or derisory. Therefore to expect the examiner to comment on more than the work in front of him/her (e.g. to comment on supervisory arrangements at the University or departmental resourcing) was for many attendees unrealistic. This whole issue of the status of examining and its relationship to the workings of the academic community as a self-perpetuating Guild was noted but little consensus was achieved.

3.3.3 Student Role in the Nomination of the Examination Panel

There were differing opinions concerning the strength of the student voice: the student should have a veto; the student should have one veto; the student should 'have a say' in the examination panel. But there was a fairly consistent view that the student should have a voice of some kind (i.e. not be totally shut out of the process). One reason given was that the student might need at the very least to declare that he/she has had contact with an individual examiner in terms of comments on work etc. There was some agreement that while the student should not be in a position to choose their own examiner their views on the kind of expertise that would be needed to ensure fair and rigorous examination of their work should be taken into account.

3.3.4 Examination Panels

The role of an independent Chair was felt to be useful in some situations but not others. Some colleagues felt that in 95% of cases there was no need for a Chair as the result of the examination process was clear cut and therefore any panel members in addition to the actual

examiners would only add a burden of unnecessary bureaucracy.

However, others felt that an independent Chair could enable the sound running of the examination process. He/she could act as a third party or witness in any appeal process – particularly if they have been involved in the examination process since its inception. Those in favour of an independent Chairperson tended to see the role as that of a 'super' examiner who would judge the work on its scholarly value rather than be biased against towards one kind of ideology or methodology.

A majority of discussants felt that the external examiner should not be all-powerful nor have the casting vote because this threw question over the purpose and role of the internal examiner.

A summary of some of the key issues in this section on Examiners and examining panels is set out in Appendix 3. What is clear from the table in that Appendix is that considerable variation in terms of function, status, level of experience and qualification etc. permeates the constitution and roles of the various participants in the examination scenario.

4. ASSESSMENT IN DIFFERING DOCTORAL CONTEXTS

4.1 Setting Out The Issues (Deleted)

4.1.2 Assessment of Collaborative Research

The matter of fair assessment of an 'original and independent contribution' becomes more complex when a research programme has been partly or wholly collaborative in nature. In one sense at least it may be easier to assess collaborative work if the criterion upon which the assessor is acting relates to individual development of the candidate as a researcher rather than contribution to knowledge. But when the latter or both criteria are being applied then individual contribution within the research programme may need to be delineated. Again, mechanisms to achieve this vary.

4.1.3 Assessment of Non-Traditional Submissions

Where the written word is not the accepted way of disseminating findings within a discipline there is a fresh challenge for the examiners and indeed for those drawing up regulations. Noting that research is defined by HEFCE, within the RAE, as including, for example, scholarship, the invention and generation of ideas, images, performances and artefacts then clearly a degree based on learning about, and undertaking, research needs to be able to encompass a range of modes of dissemination.

4.1.4 Practice-Based Doctorates

The purpose and kind of examination may shift in focus, if not in substance, in the case of Practice-Based Doctorates (e.g. 'skilled performance' of some kind may become an assessment criterion).

4.1.5. Professional Doctorates

There are some key differences in assessment between Professional Doctorates (PDs) and PhDs (see Hoddell, 1999). It may be that these differences need to be explored, particularly perhaps in relation to the role of external examiners and the notion of multiple versus single assessments. (There is a related issue here in terms of the extent to which institutions differ in the way in which they make use of any progression assessments within the 'traditional' PhD and the relationship between these and the final assessment stage.)

4.1.6 Publications within the Assessment Process

Many Universities offer a PhD by published work, often examined in a traditional viva context. Questions arise, again, in terms of what is being assessed and where the 'contribution to knowledge' is to be found (e.g. in the works or in any accompanying, summarising text). Some universities include the need to publish yet within the traditional format of a written thesis, others positively discourage it.

4.2 Setting out Key Questions -Assessment in Differing Doctoral Contexts

The key questions in TABLE 3 arose from the issues noted above.

TABLE 3

- What is the relationship between publishing and a conventional PhD? What is the function of published material within a conventional thesis? How should published material be assessed?
- How should non-traditional submissions be dealt with? How can the outcomes of collaborative research be assessed satisfactorily? How can the broad range of research (as defined for example by HEFCE) be accommodated within a unified assessment structure?
- How should differences between 'Traditional' and Professional Doctorates be accommodated within the assessment process?

4.3 Summary of Discussion on Assessment in Differing Doctoral Contexts

There is a tendency to see the PhD, submitted as a written text, as the only model of the Doctoral work. However, the PhD is available in a wide range of disciplines for which the written text has less significance. In the performing arts for example, the performance itself may be the evidence of doctoral work; in music it may be the composition. In the broader sphere of doctoral work, the Professional Doctorate has brought new challenges to assessment and standards.

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Where the written word is not the accepted way of disseminating findings within a discipline then there is a fresh challenge for the examiners and indeed for those drawing up regulations. Noting that research is defined by HEFCE, within the RAE, as including, for example, scholarship, the invention and generation of ideas, images, performances and artefacts then clearly a degree based on learning about, and undertaking, research needs to be able to encompass a range of modes of dissemination.

4.3.3 Practice-Based Doctorates and Professional Doctorates

It was noted that the assessment of 'non-traditional PhDs' i.e. Practice-Based Doctorates and Professional Doctorates might lead to a re-examination and definition of how examiners assess traditional PhDs. It also highlights some key differences notably the fact that students receive feedback when undertaking a Professional Doctorate (which fits in with the QAA's definition of Assessment) - but not necessarily when undertaking a traditional PhD. Similarly, the purpose and kind of examination may shift in focus, if not in substance, in the case of Practice-Based Doctorates (e.g. 'skilled performance' of some kind may become an assessment criterion).

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5. THE CONTEXT OF THE QAA QUALIFICATIONS FRAMEWORK

5.1. Qualification Level Descriptors

The Quality Assurance Agency (2001) has recently published its final version of the qualification framework for awards in higher education. The awards are contained within 3 undergraduate levels (levels C,I,H) and two post graduate levels - Masters (level M) and Doctorate (level D). A set of qualification descriptors which indicate the general learning outcomes that should be achieved within the range of qualification at each of the five levels are also indicated within an Annex to their framework paper. By carefully cutting and pasting the descriptors it was possible to construct the matrix at appendix 1. This allows a more convenient means to scan the descriptors within the levels and across levels. The matrix also allows some grouping of the descriptors into categories (knowledge and understanding, problem solving, communication, etc) which helps with attempts to trace notions of progression through the levels. It should be noted that this matrix is not in any way a part of the QAA's promotion of the framework and that, whilst it uses the precise wording of the QAA's descriptors, its format, categorisation and labelling are the creation of the authors of this paper.

The descriptors at level M and level D impinge considerably on our view of what should be achieved within awards such as MRes (level M), MPhil (also level M), PhD (level D) and other doctorates (also level D). As such they impact on the focus of our assessment of students and the criteria that we use to examine these awards. They suggest a more systematic and consistent approach to assessment and standards across all examiners and across all awards in the HE sector. These descriptors do provide an explicit vehicle with the potential to begin to identify and explore answers to some of the key questions posed in tables 1 and 3. Inevitably however these descriptors raise a number of related fundamental questions of their own such as:

- do the descriptors differentiate adequately between Masters and Doctorate levels?
- do the outcomes present new factors that are not currently examined?

- what implications do the outcomes present for the role of the thesis and the viva?

- do the outcomes accommodate the different types of masters and doctoral awards?

These are questions that require a more extensive and rigorous examination than has been possible in the seminars to date. Certainly, it becomes clear from even a cursory glance at the matrices in Appendix 1 that there is scope there for a more structured approach to assessing the PhD and at the same time demarcating it from other awards than has typically been practised to date. At the same time most of the descriptors at doctoral level might well seem to be implicit in much of the assessing that is current. One exception is that which is marked out in Appendix 1 as *employability* and which many might see as somewhat peripheral to PhD assessment.

We are not suggesting here that the descriptors should be directly translated as assessment criteria but that they might form a basis for discussion leading to a more structured approach to assessment and hence the possibility of more transparency.

6. CONCLUSIONS

6.1 Code of Practice

There was some discussion during seminars of the need for a 'Code of Practice for Assessing Research Awards'. It is worth noting here that the QAA in their development of Codes of Practice, devote an entire code to external examination, (QAA 2000 (January)) and yet examination of the highest award which most Universities commonly make, receives little attention in precepts 10a and 10b in the code of practice for Postgraduate research awards, (QAA, 1999 (January))

6.2 Principles

The following principles were suggested:

- Institutions need to ensure balance between research degree examination as an assessment of (a) the process of training and (b) the final product that is the thesis. Examiners need to recognise that it is the candidate who is being examined – on the evidence of learning and achievement presented in the thesis.

- The composition of the examination panel, its remit and roles of individuals should be clear to all participants.

- The relationship between the various elements of the examination must be clearly specified along with a

statement of the role of each element in the overall assessment

- In any oral examination situation the general procedure and the criteria for making judgements should be laid down in advance by the Institution.

- There should be some way of monitoring the process of an oral examination to enable fairness to be judged and good practice to be identified and disseminated.

- There are skills in examining which can be taught - assumptions should not be made. Training in research degree examining should become as commonplace as training in any form of assessment.

- There is need for transparency of threshold markers and weighting of assessment.

- New forms of research degree require rethinking of the assessment process.

- There should be comparability in the level, if not the kind, of assessment between traditional and new forms of research degree.

And finally - we must bite the bullet, accept that we are assessing a programme of research - and develop criteria. Why should doctoral work be regarded any differently to any other aspect of student work in HE?

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APPENDIX 1.

ANALYSIS OF QAA QUALIFICATION LEVEL DESCRIPTORS

Dr. Malcolm Shaw, Leeds Metropolitan University

	HE1-Certificate of Higher Education, often abbreviated to CertHE	HE2- degree (non-honours)	HE3-Bachelors degree with honours
Qualifications at this level are awarded to students who have shown	i a knowledge of the underlying concepts and principles associated with their area(s) of study, and an ability to evaluate and interpret these within the context of that area of study;	i a critical understanding of the well-established principles of their area(s) of study, and of the way in which those principles have developed;	i a systematic understanding of key aspects of field of study, including acquisition of coherent and detailed knowledge, at least some of which at, or informed by the forefront of defined aspects of a discipline;
		ii ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context; iii knowledge of the main methods of enquiry in their subject(s), and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study;	ii an ability to deploy accurately established techniques of analysis and enquiry within a discipline; iii conceptual understanding that enables the student: • to devise and sustain arguments, and/or solve problems, using ideas and techniques some of which are at the forefront of a discipline; and • to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline
	ii an ability to present, evaluate, and interpret qualitative and quantitative data, to develop lines of argument and make sound judgements in accordance with basic theories and concepts of their subject(s) of study.	iv an understanding of the limits of their knowledge, and how this influences analyses and interpretations based on that knowledge.	iv an appreciation of the uncertainty, ambiguity and limits of knowledge; v the ability to manage their own learning, and make use of scholarly reviews and primary solutions (eg referred research articles and/or original materials appropriate to the discipline).
Typically holders of a qualification at this level should be able to:	a evaluate the appropriateness of different approaches to solving problems related to their area(s) of study and/or work;	a use a range of established techniques to initiate and undertake analysis of information, and to propose solutions to problems arising from that analysis;	a apply the methods and techniques that they learned to review, consolidate, extend and apply their knowledge and understanding; to carry out projects; b critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete); to formulate judgements and to frame appropriate questions to achieve a solution or identify a range of solutions – to a problem.
	b communicate the results of their study/work accurately and reliably, and with structured and coherent arguments;	b effectively communicate information, arguments, and analysis, in a variety of forms, to specialist and non-specialist audiences; and deploy key techniques of the discipline effectively;	c communicate
	c undertake further training and develop new skills within a structured and managed environment;	c undertake further training, develop existing skills, and acquire new competences that enable them to assume significant responsibility within organisations;	
	and will have:	and will have:	and will have:

d qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility.	d qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and decision making.	d qualities and transferable skills necessary for employment requiring: <ul style="list-style-type: none"> the exercise of initiative and personal responsibility, decision making in complex and unpredictable contexts, and the learning ability needed to undertake appropriate further training of a profession or equivalent nature.
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	HE4: Masters degree	HE: Doctoral degree
Qualifications at this level are awarded to students who have shown:	i a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study, or area of professional practice;	i the creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality to satisfy peer review, extend the forefront of the discipline, and merit publication;
	ii a comprehensive understanding of techniques applicable to their own research or advanced scholarship;	ii a systematic acquisition and a substantial body of knowledge which is at the forefront of an academic discipline or area of professional practice;
Typically holders of qualifications at this level should be able to:	iii originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline;	iii the general ability to conceptualise, design and implement a project for the generation of new knowledge, applications or understanding at the forefront of the discipline, and to adjust the project design in the light of unforeseen problems;
	iv conceptual understanding that enables the student: - to evaluate critically current research and advanced scholarship in the discipline; and - to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses.	iv a detailed understanding of applicable techniques for research and advanced academic enquiry.
	a deal with complex issues both systematically and creatively, make informed judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences;	a make informed judgements on complex issues in specialist fields, often in the absence of complete data, and be able to communicate their ideas and conclusions clearly and effectively to specialist and non-specialist audiences;
	b demonstrate self direction and originality in tackling and solving problems and act autonomously in planning and implementing tasks at a professional or equivalent level;	b continue to undertake pure and/or applied research and development at an advanced level, contributing substantially
	c continue to advance their knowledge and understanding, and to develop new skills to a high level;	to the development of new techniques, ideas, or approaches;
and will have:	and will have:	
d the qualities and transferable skills necessary for employment requiring: - the exercise of initiative and personal responsibility, decision making in complex and unpredictable situations,	c the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent	
and - the independent learning ability required for continuing professional development.	environments.	
Problem Solving	Communication	

APPENDIX 2.

RESEARCH DEGREE ASSESSMENT IN THE UK

	The Finished Product	The Research Process	The Viva
Function	<ul style="list-style-type: none"> • verification of learnt research skills • indicate contribution to research community • indicate contribution to knowledge 	<ul style="list-style-type: none"> • facilitate research apprenticeship 	<ul style="list-style-type: none"> • polishing/fine tune the literary work • examination of the candidate's knowledge and skill • verification of authenticity
Status	prioritised as medium for assessment	rarely prioritised during assessment	varies from absolute to probable to possible
Mode	<ul style="list-style-type: none"> • written thesis • alternative forms of doctoral submission • culmination of discrete parts of professional doctoral programme • collection of published work with exegesis 	<ul style="list-style-type: none"> • supervision • taught elements (including training in methodology and in generic skills) • retrospectively acknowledged (PhD by published work) 	<ul style="list-style-type: none"> • real time • video conferencing • appraisal of work (e.g. art submission)
Assessment Criteria	<ul style="list-style-type: none"> • publishability (does not always apply, e.g. in practice based doctorates) • originality • innovation • significance of contribution to knowledge • level of scholarship 	<ul style="list-style-type: none"> • may form part of assessment in professional and practice based doctorates • records of progress may be referred to 	<ul style="list-style-type: none"> • determined by evaluation of finished product • ability to communicate ideas and defend positions • evidence of author
Peogression & Improvement	<ul style="list-style-type: none"> • increased transparency /clarity (from earlier submissions where made) • threshold markers for different awards • weighting for different components 	<ul style="list-style-type: none"> • evaluation of final thesis may be interpreted as a synoptic assessment of the complete process 	<ul style="list-style-type: none"> • may lead to amendment and further supervision input

APPENDIX 3.

VARIATION IN CONSTITUTION OF AND ROLES WITHIN EXAMINATION PANELS

	External Examiner	Internal examiner	Chair	Supervisor	Student
Composition	invariably necessary	often but not always necessary	<ul style="list-style-type: none"> external examiner external to panel chosen on the day 	<ul style="list-style-type: none"> not necessary in exam process may attend viva at discretion of examiners or student 	presence necessary viva required
Status of individuals	<ul style="list-style-type: none"> expert in field of research? experience of examining? has casting vote? 	<ul style="list-style-type: none"> aware of university regs? candidate's friend? 	<ul style="list-style-type: none"> chair independent of panel –aware of university regs? external? 	<ul style="list-style-type: none"> Candidate's friend Advisor on process 	<ul style="list-style-type: none"> voice in composition of panels? no voice – merely subject of enquiry
Function of Individuals	<ul style="list-style-type: none"> to gatekeep? to be teacherly? to endow credibility to ensure comparability across institutions 	<ul style="list-style-type: none"> to represent institution? to ensure fairness for candidate? to balance against external? 	<ul style="list-style-type: none"> to mediate? to control process of oral? to enable fair process? 	<ul style="list-style-type: none"> to act as note-taker for candidate in respect of any amendments to interpret for the candidate for the examiners? 	<ul style="list-style-type: none"> to authenticate research? to prove research skill as an individual? to give evidence of learning
Experience & Qualifications	<ul style="list-style-type: none"> successful supervision? experience of examining? holder of a Phd? Domain expert 	Awareness of regs	Awareness of regulations		Research skills? first/pg degree?