

The PhD: Pitfalls and Pathways

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Abstract

A concern about the current performance of higher education research and research training institutions is raised by Qualifications Authorities in various countries. This is compounded by a lack of general acceptance of the need to improve student completion rates and times between first enrolment and graduation, while at the same time, recognising government's responsibility to provide information on completions, to encourage such a focus. This article provides information on postgraduate completions, and provides insights into what PhD examiners look for in dissertations as part of the duties of responsible supervisors and as part of departmental responsibilities towards their doctoral students.

Introduction

James and Baldwin (1999) argue that to work with students to establish a strong conceptual structure and research plan has some implications for supervisors. Supervisors need to train students in the practices and ethics of research in the discipline and students need to develop a sophisticated research conceptualisation. One suggestion is to ensure that all students develop exceptional research concepts, not just exceptional students. This means that the supervisor has to ensure that students must be helped in such a way that they do not lose track of the ultimate goal, namely to contribute to solutions experienced in their particular discipline, and specifically to

refining some aspect of the theoretical framework of their discipline. Reis (2006) argues that lack of understanding of the reasons to complete a doctorate could also have implications for supervisors who need to ensure that they help to reflect growing capital investment in their postgraduate students. Supervisors should remember that the role of supervision remains profoundly ambiguous. Besides coping with the ambiguities of supervision is being complicated because some supervisors fail to keep track of the progress of individual students, and because some supervise because it is expected of them, not because they have a commitment to the creation and growth in a new body of knowledge in their discipline. This article addresses some of these issues around supervision and closes off with a number of case studies that highlight some of the problems that are addressed here.

Motivation for this Contribution

The first author is established at London Business School, and is a regular commentator on business issues for the BBC. The second author is a retired professor of Communication Science who has successfully supervised dozens of masters and doctoral students over the past decade while at the same time having served as external examiner for about a dozen masters and doctoral students. In 2006 he served as the Research Coordinator for MBA and DBA studies at the Graduate School of Business of the University of KwaZulu-Natal where he is also co-supervising masters and doctoral students in Informatics. The third author has been active as a postgraduate supervisor and examiner in Informatics and Business Management for at the University of KwaZulu-Natal the past four years. He has recently accepted appointment as a professor in Informatics in the School of Computing at the University of South Africa.

This article presents a consensus position derived from a reflection on some of the authors' individual experiences as supervisors and examiners of doctoral students over the past decade. As a contribution to problem-based research, the article distils some general solutions for the problems identified here and more specifically to provide guidance to those who are in the process of doing their own PhD research. It focuses on pitfalls that could entrap supervisors and doctoral students as well as on pathways around them.

Agreeing to be an examiner for a PhD thesis is not a responsibility that we take on lightly. Also, we find the task of examining someone face-to-face as panel members during the subsequent *viva voce* (the candidate's oral defence of the thesis) to be daunting and stressful, particularly when knowing that the candidate may have invested considerable time, resources and emotion in producing the thesis. The candidate, particularly if s/he is a member of staff or has been funded by an employer, will also be under considerable pressure to get the PhD qualification and will lose considerable face if s/he fails. Candidates may also consider litigation if things are not done 'by the book', or if they feel they have other grounds for complaint.

The candidate's supervisor will also be under pressure because all supervisors are aware that their supervision skills are being examined along with the candidate's thesis. From a supervisor's perspective having a PhD 'go wrong' will create all kinds of problems, particularly in the higher education sector that is now overtly managerial, festooned with targets and populated by "quality assurors" often in central departments who have to be seen to control quality so that they can demonstrate that they are doing their jobs properly as the custodians of the university's holy grail of quality upon which its ranking depends. A reading of the Times Higher in England reveals that a number of institutions (yes, even those in the Russell Group) have been sued for not providing adequate supervision after a PhD has been failed. In one case a candidate who failed a PhD sued a university for not having been thrown out at the end of the first year of postgraduate studies, and for allowing the submission of a thesis that was subsequently found not to be up to the mark.

In a nutshell, examining a good PhD could be a rewarding experience where even the examiner feels that s/he has learnt from a well-crafted, up-to-date piece of research. Examining a poor PhD could be a nightmare and both a worrying and stressful experience. The trick for candidates – and their supervisors – is to make sure that the thesis being submitted is 'a well-crafted up-to-date piece of work'. While we have had the pleasure of examining such theses, some our experiences have unfortunately also been with examining poor theses that either had to be failed outright, or that had to be returned to the examination sections of host institutions with a clear set of recommendations to the candidates, identifying how the work should be

recast, rewritten and resubmitted (usually in a period of not less than one year). The authors would like to emphasise that they only fail a PhD as a last resort if the work submitted is considered flawed beyond rectification.

Problems around Postgraduate Supervision that Prompted this Contribution

In this section the authors briefly look at general problems that relate to postgraduate supervision and examination, followed by problems experienced with the supervision and examination of business-related doctorates. However, before considering particular problems, the authors would like to bring into focus three cumulative (rather than supplanting) fundamental shifts that universities have undergone over time, easily lost sight of, that form part of the complex background of supervising and examining PhD theses.

The Three Shifts

Three fundamental shifts in our view characterise the rise and development of universities in the Western tradition, namely the *secularisation*, *commoditisation* and *democratisation* of knowledge. Secularisation entails that there are no fields of enquiry beyond the bounds of human intellectual pursuit. Commoditisation entails that research must contribute to society by solving 'real world' problems. Democratisation entails a critical reassessment of the assumptions that underpin what is considered to be valid knowledge in Western civilisation.

The first shift already started taking place at the Renaissance period when universities emerged from religious institutions as independent institutions of knowledge, not under the sway of religious institutions. The first shift can therefore be characterised as the emancipative *secularisation of knowledge*. Secularisation of knowledge entails in principle that the values and norms that regulate knowledge exist in the inherent logic of knowledge itself, and not in religious or philosophical traditions, to be derived through critical reasoning.

The second shift, which started in universities around the middle of the 20th century in free enterprise culturally enriched open societies, and which now has become the norm rather than the exception, can be characterised as the *commoditisation of knowledge* because funding providers and students alike insist that higher education qualifications should lead to employability and should contribute to finding solutions for social and economic problems by means of problem-based research. In this regard Reis (2006) argues that universities need to see themselves as academic enterprises. Similarly, Martin *et al.* (2001) argue that because funding plays a role in higher education it could help improve academic efficiency. Supervisors in all disciplines therefore need to be aware of the micro-economics of control in universities because universities themselves have become commodities that are ranked on league tables for students as potential customers. In the before-mentioned commoditisation context it should also be remembered that as customers, students are also potential litigants.

The third shift, namely the *democratisation of knowledge* (sometimes also referred to as the indigenisation of knowledge), is prevalent in recently emancipated societies like South Africa. From an epistemological and ontological perspective this approach requires that higher education institutions critically reassess Western assumptions about knowledge and recognise indigenous knowledge as a legitimate object of sustained research. It furthermore sees knowledge as a tool for social transformation to achieve social justice by making learning accessible to students from previously disenfranchised sectors of society in order to facilitate access to previously inaccessible societal infrastructures.

General Problems around the Supervision and Examination of Postgraduate Theses

Supervisors are sometimes caught in the crossfire between reformists who require the democratisation of education and commoditisation pragmatists in university administrations who require brisk throughput rates. In view of the general perception that students with good grades are more inclined to finish a course of studies in good time, good grades have become a key variable

among admission criteria in disciplines where there are more applications than available study positions. Edwards (2002) points out that funding at universities has been reduced to four years for a doctorate. The pressure is now on universities to ensure that students complete their studies within this time frame. The term "timely completion" has drawn the attention of academic administrators because it can be quantified and be used as an instrument of accountability (Edwards, 2002).

Dropout rates are higher in disciplines or in research topics where more autonomy is required of students, while discipline-specific conventions and traditions also play a role. Edwards (2002) identifies a number of problems around postgraduate supervision from the student's perspective, namely incompatibility with one's supervisor, finding few supporting structures, isolation and confusion over resources. According to Martin *et al.*, (2001) the gender of a student could also play a role in the completion of postgraduate studies.

Problems with Supervising Postgraduate Business Degrees

There are several problems that affect supervision of postgraduate business degrees, and which in our view contribute to the downfall of this degree. It is our perception that the commoditisation process is more pronounced in business studies than in other disciplines. The workloads of individual staff members are a problem, particularly in disciplines that offer ancillary courses for related disciplines, making it difficult for some academics to engage in research and publication, both of which usually combine to serve as a springboard for postgraduate supervision. Another problem that many supervisors experience is to define original research, or how to gain enough experience in a topic that falls outside one's field of expertise. A further problem is aligning the specific thesis requirements with the generic learning outcomes required by qualifications authorities (e.g. SAQA in South Africa). A further problem is to assess the adequacy of research libraries and to ensure that students review the required number of relevant references.

There are several aspects of supervision that are difficult to quantify from a supervisor's perspective, but that in our view nevertheless should be

explicitly attended to as part of formalising the supervision process. Some of them are:

- the formalisation of the supervisor-student relationship
- how to facilitate an individual student's transition into postgraduate research
- how to establish a meeting of minds with each student
- the number and duration of consultation sessions with students
- criteria for continuous student evaluation
- how to examine specific subsections of work produced by students and give timely feedback that clearly differentiates between advice that could be taken at the student's discretion and directives that require implementation
- how to record a student's progress after each consultation session
- how to use such student progress records to give an occasional account of one's supervisory activities
- the criteria for being rated by graduates for the quality of one's supervision
- the division of labour in the case of co-supervision
- how to remain a quality control gatekeeper rather than becoming a co-author of dissertations
- and finally, how to help graduate students to publish and disseminate research findings after they had obtained their formal qualifications

Ensuring Relevant Research

The best way to ensure relevance is to use a problem based research approach that focuses on an actual unresolved problem (or problem set). A thorough literature review is the keystone to ensure that the researcher is not reinventing the wheel by attending to problems that have already been solved:

- to what extent prior research has found solutions, enabling one to eliminate solved problems, identify yet unresolved ones and

thereby strategically locating one's research in relation to ongoing research in the field

- what the most appropriate research methodology would be to employ in order to solve the problems that one sets out to do
- how to design a research instrument that will enable one to answer specific research questions and thereby give a precise account of the extent to which one has been able solve the specific problem/s that one set out to do
- what the most appropriate theoretical framework would be to constrain the interpretation of one's own empirical results and to ensure that one's research is actually contributing to a relevant theory of one's discipline

In order for a student to successfully conduct relevant research, beginning with a thorough literature review, there needs to be a meeting of minds, based on a relationship of trust between student and supervisor in order for the student to tap into the expertise of the supervisor. In this regard James and Baldwin (1999) say that it is crucial for supervisors to get to know individual postgraduate students better and to carefully assess their individual needs. James and Baldwin further emphasise that the supervisor needs to spend time with the student to define the principal requirements of a thesis and to draft a timetable that also provides for dealing with last minute problems. Each person is unique and some people are reticent to reveal their true selves for reasons best known to them. A good supervisor will also encourage students to get involved in departmental activities such as occasional seminars, motivate them and work with them to establish a strong conceptual research framework and to develop a specific research plan. All of these require different individual approaches. It is worth noting that at the beginning of the supervision process the supervisor holds the balance of power which s/he gradually transfers to the researcher as the latter gains expertise in the field of study. What good supervisors never relinquishes, however, is the responsibility of being a quality control guardians in service of their fields of expertise.

Supervisors and students need to look at new approaches to ensure that they are focusing on the cutting-edge problems and not just on run-of-

the-mill topics. Supervisors should from the outset and throughout ensure that the student's written output remains concise, coherent and lucid, and that the various subsections remain properly aligned from the title page to the index.

Edwards (2002) argues that mandatory training of postgraduate supervisors has grown and is an approach that should be kept going. This is because of possible litigation by students due to a poor supervision. He notes that the transmission of tacit knowledge and experience are dismissed because they are not deemed to be the best approach. This is also because there is a lack of professional judgment and increasing bureaucratic surveillance of supervision and an emphasis on quantifiable outcomes with verifiable results (Edwards, 2002).

Yet, in spite of efforts to cultivate supervisors in droves, supervision, if approached properly, requires a genuinely complex set of tacit conceptual skills rather than taught ones. Competence to supervise is taken for granted among senior academics rather than being considered an incrementally and experientially acquired ability that is gradually transferred to students as they gain expertise. Because novice researchers did not ingest these tacit skills with mothers' milk, besides regular mind-stretch individual consultation sessions entailing robust supervision, novice researchers should also be intentionally and explicitly exposed to events and activities that impart specific research competencies, and that will allow them to network with other researchers in their chosen field of eventual expertise, e.g. by contributing to seminars, workshops and conferences.

Good supervision includes exposing the candidate to the uncertainty of outcomes inherent in authentic research, fear of failure, self-doubt, self-assessment, the need to make difficult decisions, the need to develop a structured research environment and a coherent conceptual framework to make sense of results, and finally, a mind frame of perfectionism that will not consider first attempts and initial formulations to be good enough.

Feedback approaches should be the main gauge by which both parties measure whether the supervision is successful because it must be timely, thorough and critical and given within a supportive personal relationship between supervisor and student. Approaches by the supervisor should ensure

that explicit protocols of supervision is followed, ensuring that the student/supervisors relationship is a lengthy and worthwhile one. Peer support and mentoring is an approach that can be regarded as a persistence enhancer.

The Pedagogical Basis of Good Supervision

Edwards (2002) argues that a pedagogical basis could be used during the project by engaging a critical reflexive view of supervision, focusing on the relationship between teaching and learning and looking in particular at the complexities of the pedagogical practice associated with advanced level postgraduate supervision.

Highlighted practices are guided by some principles like supervision implies the fundamentals of good teaching, concern for students, interest in their progress and the provision of thoughtful and timely feedback. James and Baldwin (1999) also note that supervision is an intensive form of teaching and requires much energy because of a professional commitment needed for every student. The problem of personal problems can place a burden on the supervision because the student may not to pay full attention to requirements. Implications can also be that the individual is affected because of preferences by the student (especially cultural differences and this could impact on the student finishing off the degree) (James & Baldwin, 1999). The implication of possible failure has an impact on students' moods and they will move through different phases (excitement, despair, boredom and confidence). Edwards (2002) notes that supervisors should value these mood shift phases that students go through. Finally, supervisors are knowledgeable agents that can learn from one another about the supervision process.

What Distinguishes a Good PhD Thesis from a Poor One?

In this section and subsequent sections of this contribution the authors are articulating a consensus position. As a recent article stresses, when an examiner is looking at a PhD s/he should always remember that what is examined is a PhD and not a submission for a Nobel Prize (Mullins & Kiley, 2002). Despite having examined a number of PhDs and having read several

books and articles about the PhD it is a difficult task to set down on paper the criteria that one would use unambiguously to define 'PhD-ness'. As Mullins and Kiley (2002:369) point out there is little well researched evidence about the examination of PhDs and the field is characterised by 'anecdotes, generally of the traumatic kind'. Unfortunately, we have a number of traumatic anecdotes.

Our consensus view of the PhD is that it is the process by which one serves one's academic apprenticeship. It is where candidates acquire the skills needed to become independently minded academics who can conduct research in a rigorous way. It is also where they achieve 'mastery' in particular fields (i.e. they become an expert on 'something'). Just as apprentices who graduate into any other 'trade' will still have some way to travel before they become a fully skilled craft worker, so the recent PhD will still have more work to do before s/he becomes a fully skilled academic craft worker. Consequently, we see the PhD candidate as a person who has achieved a certain standard but who still has some way to go along self discovered pathways around shortcut pitfalls to perfect newly acquired research skills. The PhD thesis should demonstrate both the candidate's current level of achievement and the potential of the candidate to go further and become an accomplished researcher in their own right.

Perry (1994) argues that a PhD (both person and thesis) should satisfy three criteria:

1. A PhD should make a distinct contribution to a body of knowledge through an original investigation or testing of ideas to a standard which is worthy of publication - this is, in our view, the acid test;
2. The researcher has demonstrated a level of competence in the design and implementation of a research process, including knowing how to collect evidence, an understanding of, and competence in, appropriate research techniques and an ability to report and evaluate the significance of research findings in the context of an existing body of knowledge, and
3. The candidate has achieved mastery of a body of knowledge, including an ability to make critical use of published

work and source materials with an appreciation of the relationship of their field of research to the wider field of knowledge.

Even though these criteria sound reasonably explicit, the problem for an examiner is how to apply these standards by the critical application of their own 'academic judgement'. It is interesting to note that the regulations in many institutions allow students to appeal against decisions on a host of issues (largely procedural) but few will countenance an appeal against the academic judgement of the external examiner. Where there is a 'split decision', most universities will call in an additional examiner and ask them to adjudicate. Some of us have been involved in cases such as these.

If we consider Perry's three criteria, we can raise issues with all of them. If we are to use 'publishability' as a robust test of academic merit, does this mean that the work should be publishable in a top flight academic journal or be publishable in some low rated, low status pseudo-academic or practitioner journal? How do we define and assess competence in research design? How can the candidate demonstrate 'mastery' and, more important, what constitutes 'mastery'? Researchers into the PhD process have commented on the 'indeterminacy' of many of these criteria (Mullins & Kiley, 2002:371). The greyness and indeterminacy of these criteria mean that the examiner's academic judgement is absolutely critical.

While, as academics, we should all be familiar with the criteria that demarcate good research from bad, and we should be unbiased and fair in the way we make our academic judgements, we have found ourselves to be very tested in a number of *vivas* we have participated in. What we propose to do in the rest of this paper, is to discuss how we have made the decisions we have in some of the *vivas* we have participated in. We will also discuss the process we go through in examining the thesis both in our private reading of the work and in the *viva*.

How do we Examine a Thesis, and What Process do We Go Through?

The process often starts with someone 'chatting you up' at a conference or a

phone call or an email in which you are asked to be an external examiner. You feel flattered - and sometimes this is the only reward you are going to get. At this point the student might be a few months away from completion - if they are, this is a good insight that the supervisor is well organised and is planning ahead. The thesis arrives and you are normally given six weeks to read it before the *viva*. You have a flick through it and, if it looks OK, you feel inclined to read it. If it looks dodgy, there is a real temptation to put off reading it.

So, what distinguishes OK from dodgy? The abstract, the list of contents and the first few pages are often very informative. Spelling mistakes and typos in the first few pages never bode well and indicate to us that if the candidate is prepared to be sloppy in the way they present research that they were probably sloppy in the way that they did their research. A contents page that does not provide a clear logical and sequential overview of the thesis also gives a strong hint of problems to come in that the candidate is demonstrating that they have not developed a logical and coherent research plan. Indifferent presentation and untidiness are also powerful indicators of problems to come. A good indication of the quality of the thesis can also be gauged by checking if the references cited in the text have been listed in the reference section and also by scanning the reference list to see which journals the candidate has used most intensively. A review of the material sent by the university to accompany the thesis is also insightful - particularly if one can determine the length of time that the candidate has been registered. Our observation is that long gestation PhDs are often problematic.

To read a thesis carefully and to make notes to support the conduct of the *viva* will generally take us 2 to 3 days - sometimes longer, also for good theses. In total (including the eventual *viva*) examining a PhD takes us at least 3 and often 4 or more days. Our usual approach is to try to read the entire thesis from beginning to end and to make copious notes on the thesis. Sometimes we feel that we have written more than the candidate (we haven't - it just feels like it). Our attitude to the thesis and the candidate improves considerably if the thesis is easy to read, well written, well signposted, lacks grammatical/ syntactical errors, is well structured, has a well developed narrative (it has to tell a story) and is carefully presented. We use Post-it

notes extensively to mark key pages and to make comments that we will follow up during the *viva*. As we start to read the thesis, we are looking for things that make us feel 'comfortable' with the thesis and by inference the candidate and their supervisor. Things that make you feel 'uncomfortable' tend to reinforce each other and make you look harder for problems and to become suspicious. One of the most worrying things is when you come across two sections of the thesis where one section written in perfect, grammatical English and the other isn't. You immediately start to ask yourself if one person has written the entire thesis or if some sections have been cut and paste from other locations.

A good thesis takes less time to read and examine than a poor thesis. With a poor thesis, the examiner has to develop a robust case for defending his/her position in any recommendation that he/she might make. Most universities ask examiners to write a pre-*viva* report and to submit it to the University's research office prior to the *viva*. Here, the examiner is asked to indicate if they think holding the *viva* would be worthwhile. If the examiner thinks the thesis is too weak to be examined, s/he might take this option though this would reflect very badly on the supervisor and the institution. The examiner is usually asked if s/he wishes to make a preliminary judgement on the thesis (pass, pass with minor modifications, major modifications down to outright fail) but many examiners tend not to commit themselves until the candidate has had time to defend him/herself at the *viva*. We rarely commit at this point unless we feel that there is a cast iron case for us taking the decision we will eventually make. Our view is that the candidate should have the opportunity to defend her/himself. However, it is our experience that the *viva* confirms our prior expectations: a poor thesis is usually accompanied by a poor defence.

So, when examining a thesis, what do we look for? We have listed below some of the questions and issues that we wish to see properly addressed in the thesis and defended at *viva*:

- Has the candidate formulated a proper problem statement, consisting of a general problem that is decomposed into interrelated sub-problems, or alternately a research question?
- Have the research aims and objectives been clearly articulated?

- Has the candidate adequately reviewed the literature to determine solutions proposed by other researchers for problems identified, the most appropriate research methodology to employ and the most appropriate theoretical framework to constrain the eventual interpretation of the researcher's own research results?
- Is the candidate aware of the current debates in their field?
- Have any key papers, authors or journals been omitted from the review?
- Has the literature been subject to an insightful critique and synthesis or just summarised, or even worse, just listed?
- Has the candidate defined the current 'knowledge boundary' and identified how s/he proposes to move that boundary forward?
- Have the theoretical underpinnings of the research project been clearly articulated?
- Have other theoretical frameworks been reviewed?
- Is there conceptual clarity?
- Do the conjectures to be tested flow logically from the theoretical base?
- Is the methodology appropriate for the testing of these conjectures given the underpinning theory?
- Have the concepts been adequately 'operationalised' and have these 'operationalisations' been adequately justified?
- Has the approach to evidence collection been properly designed and has it generated robust evidence?
- Is the sample size/base of evidence adequate for the research design?
- Have the analytical techniques that have been used been properly applied?
- Have we been given enough information to let us make up our own mind about the reliability and validity of the results?
- Have the conjectures/hypotheses been refuted or not?
- Have the findings been adequately assessed in the context of the literature review and existing theory?
- Has the candidate demonstrated a mastery of 'key' research skills?
- Are the findings of academic and/or practitioner significance?

- Has the candidate done what they claimed they would do in the introduction?
- Are there any logical inconsistencies?
- Are there any major flaws in the chain of argumentation?
- Is the candidate aware of any major (theoretical or methodological) criticisms that could be levied at their research?
- Do the conclusions properly 'close down' all aspects of the research?
- Is there a contribution to knowledge and, if so, what is it?
- Is the thesis well written and well presented? Is there 'clarity of exposition'?
- Does the thesis tell us a story? Is there a narrative? Is the thesis well signposted internally?
- Do we feel comfortable that this person is really an expert in their field?
- Has the candidate demonstrated originality?
- Do we think parts of the thesis are publishable in a 'reasonable' journal?

When we were undertaking our own doctoral research, our supervisors actively encouraged us to present papers at 'good' conferences and to get parts of our thesis published in reputable scholarly journals before we submitted our theses for examination. When we submitted our theses, we appended these publications to the thesis. We feel that these are good tactics as the candidate gets known on the 'conference circuit' and, if published work is appended that has gone through the review process of a reasonable journal, then the candidate is providing clear evidence of the 'publishability' of their thesis and the originality of their research to the examiner. If the candidate can refer to, or append, their own published work in the thesis, our view is that this will strengthen their case for being awarded the PhD.

Instructive Negative Experiences

Having outlined our approach to examining a PhD prior to holding the viva, from which supervisors and PhD candidates can discern pathways around the various pitfalls of failure, we would like to describe some of the experiences

we have had in examining PhDs by discussing some of the more blatant problems that we have had to confront. We accept that in the cases below we have emphasised the problems that we have had to address as an external examiner and that the cases focus far more on the 'negatives' than the 'positives'. We present these examples as instructive 'beyond this point there be monsters' warnings along the path to successful research.

Case 1: A member of staff at a university who was about to run out of time in his/her registration for a PhD

This was a long gestation PhD with a chequered supervision history. A decision had been made to submit the thesis for viva as, under the regulations of the institution, submission would give the candidate an extra year to complete the thesis (this was not disclosed to the external examiner prior to the examination). The thesis had major flaws: there was no clear methodology; the literature had been badly reviewed with key elements of the literature being conspicuously absent; the thesis was badly written in a flippant style; there were serious flaws with both evidence collection and analysis; and, the theoretical basis of the work was weak. Clearly, the thesis was not at the required standard and the opinion was that the candidate had been very badly supervised; that the thesis required significantly more work; and that the institution should find the candidate a competent supervisor. The candidate was asked to resubmit the thesis in not less than one year.

Case 2: A member of staff at a university who had been registered for (well) over ten years

Again, this was a long gestation thesis in which the research question had long ceased to be relevant. The evidence collected was substantially out of date. The literature was not 'reviewed' but 'listed' in that each sentence in the literature review chapter began with an author's name followed by an almost verbatim rendition of the key points of the paper 'cut and paste' from the journal article. The literature had certainly not been synthesised to provide a distillation of the key issues. The candidate was unaware of recent debates in the field and recent literature was conspicuously absent. The thesis was badly written. During the viva, the candidate was aggressive and unwilling or unable to see the examiners' collective point of view. The

candidate was asked to resubmit the thesis in a substantially revised format for consideration for a PhD in not less than a year. On resubmission the candidate was awarded an MPhil. A threat to appeal against the academic competence of the examiners was made by the candidate but not pursued.

Case 3: An overseas student at a UK university who had been registered for over six years

The candidate had had a number of supervisors. This 'churn' in supervision had been caused by significant staff turnover at the institution. The candidate was currently being supervised by a person who was (clearly) not an expert in the field and while the supervisor had made reasonable attempts to supervise the candidate the lack of detailed subject knowledge was very evident. The thesis contained major flaws in terms of the conceptualisation of the research; the inappropriate use of statistical techniques; a poor writing style; and, a poorly conducted literature review. The candidate, during the viva, was given clear guidance on what the examiners thought were the core problems of the thesis and was asked to resubmit in not less than one year.

Case 4: A student at a business school with no research plan

The student started off with a researchable idea but changed supervisor as regular as someone who changes clothes. The student carried out his research *but* never presented his research proposal. He used a present instrument from another study to collect data and paid all the money to the statistician without getting approval from either his supervisor or the university. He was similar to the 'I did it my way' case except that he eventually got stuck. He had to present his research proposal to a higher degrees committee which turned the presentation down. In the meantime he paid thousands of pounds to someone to do his statistics for him without approval from the university's ethics committee.

When he ended up with another supervisor he was advised to shorten his 80 page proposal to a manageable length as well as his 120 page literature review. His comments were that the supervisor must tell him what to cut out. Obviously this comment was ignored by the supervisor. He then advised the new supervisor that he already collected the data and that the supervisor must tell the statistician what must be done, openly admitting that he knew nothing of the statistical analysis required to validate the research.

Eventually the supervisor withdrew from supervising the student because it was clear that this student was trying his utmost to get a PhD degree with the minimal amount of personal exertion. The university allocated a new supervisor with the candidate who had to start all over again.

In three of the cases listed above, the external examiner subsequently experienced major problems while examining the eventual thesis. In each instance, the external examiner could easily have made out a case for failing the candidate outright without having given them any opportunity to remedy their work. In two of the three cases, the external examiners let it be known that the problem was not solely that of poor research but also of poor supervision and lack of quality control at the host institutions. In two cases, the candidates had, without doubt, been indifferently and ineffectively supervised and the theses had been prematurely submitted.

How Do We Conduct a *Viva*?

Different institutions have different regulations and protocols for conducting *vivas*. In some institutions, a neutral chairperson is used to ensure adherence to the University's regulations. In other institutions the supervisor can be present (but may not speak unless invited to do so by the examiners) In yet other institutions the supervisor is excluded from the *viva*. *Vivas* are tense and potentially stressful events: tears of joy - and sadness - are not unknown. *Vivas* are events to be taken very seriously and, in the age of the litigious student, to be run in strict accordance with the regulations of the hosting institution. It is our view that the candidate should be given every opportunity to show her/himself in a positive light.

Our approach is to develop a set of detailed questions before the *viva* and to share these with the internal examiner prior to the *viva*. We then agree on a strategy for running the *viva* with the other examiner(s). Our yardstick normally is that the candidate should be speaking for certainly over 80% of the time and preferably over 90% of the time as the *viva* is their opportunity to impress us with how much they know. To be candid, our first objective is to make sure that the thesis is their own work and that they know it inside out. One can only determine this by getting a candidate to do most of the talking.

An approach to asking questions is to work our way through the thesis sequentially asking 'top level' questions such as:

- Could you discuss why you selected your research problem/ question and why did you articulate it in the way you did?
- What debates are current in the literature in your field?
- What theoretical perspectives did you consider?
- Could you discuss the core concepts you have used?
- Why did you choose the theory/analytical framework that you did?
- Discuss and justify your methodological stance?
- How did you collect your evidence?
- Why did you choose to analyse it in the way you did?
- What did you find out?
- What is the academic/practitioner significance of what you found out?
- How does what you found out fit within the context of your literature review?
- What is originality in what you have done?
- What new knowledge, insights, frameworks or models have you identified or developed?
- What, with hindsight, would you have done differently?
- What have you learnt from your experiences?

While the above list will usually form the 'top level' questions, we will use detailed notes from the thesis to explore issues specific to the thesis particularly if techniques have been misapplied or we want to get the candidate to justify the choices they have made in more detail. A good viva is one where the candidate engages in a robust discussion of their work, is encouraged to demonstrate the full extent of their subject knowledge and is

able to demonstrate that they have acquired mastery of the skills needed to do good quality research. A poor *viva* is one where the student feels that they are on the defensive, feels that he/she is being 'interrogated' or one where the examiners are doing most of the talking. At one *viva*, one of us asked the student several questions to which his answer was "It's in the thesis". Not only will this antagonise an external examiner, the candidate is also missing out on an opportunity to put their subject knowledge on display and to demonstrate 'mastery'. A *viva* is not a forum where modesty and reticence are good tactics. Actions that raise the critical stickles of the examiners are not recommended.

What Lessons have we Learnt?

Having examined a number of doctoral theses and having been a *viva* chair in several others, we are yet to experience a PhD being given an outright 'pass' on the day of the *viva*. In one case, we recommended an outright fail on resubmission and in another case we have recommended that a PhD on resubmission be resubmitted again for an MPhil. These are decisions we have not taken lightly but unfortunately, the *viva* is the place where problems in the history of the PhD tend to 'float to the surface'. In a number of instances, our view is that the candidates have not only been badly supervised but also badly advised. In these cases we have tried to be 'lenient' by recommending both a resubmission (usually in not less than a year) and a change of supervisor.

The lessons we have learnt from the experiences we have been through range from the trivial to the structural. At a trivial level, the small things do count. If a thesis is littered with typos and grammatical mistakes, references are missing, referencing is inconsistent, figures and tables are sloppily produced and different font sizes are used, the examiner is going to be antagonised. Many examiners we have spoken to feel insulted that the candidate has neither taken sufficient time nor effort to get the basics right. Unfortunately, those theses where the basics have not been got right are invariably those with more significant problems.

Some of the theses we have examined have had major and very evident problems that should have been spotted by the candidate's supervisor prior to submission. These have included problems related to the

structure of the thesis, inadequate literature reviews, flawed argumentation, wrongly applied analytical techniques, inappropriate choice of theory, the inappropriate mixing of different research styles, badly articulated research questions and research questions losing their relevance because of the length of registration of the candidate. Many of these problems are avoidable but all too often not avoided. In this case, we should also add the caveat that applies to many supervisors 'let he who is without sin amongst you cast the first stone'.

Conducting a *viva* can be a challenging experience when the examiner encounters, face-to-face, a candidate that one could justify failing. However, in failing the candidate you would also be failing their supervisor/s and their host institution. Politically, this can be very difficult.

Many years ago, one of us met a driving test instructor and he was asked how he *really* made the decision who to pass or fail. He told one of the authors that he imagined the candidate driving a car with the examiner's wife and children sitting on the back seat. He said if he felt they would be safe in the hands of the learner, he would pass them but if he felt they would not be safe he simply found an excuse for failing the candidate. We sometimes feel the same in examining a PhD student. If we feel that they could run a major research grant from a funding council 'safely' based on the way they have conducted and presented their own doctoral research, then we think we should pass them. After all it's not a Nobel Prize.

Conclusion

This article covers the importance that supervisors, external examiners and the *viva voce* play in any postgraduate students' life. It pointed out a number of pitfalls along the journey to academic success, and pathways around them. Finally, it hopefully demystified the process of examining a thesis, and what happens during the *viva voce*. It also explains what the student should know and how s/he should go about in order to safely pass through the final potential pitfall to success, the *viva voce*.

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