

Learning from External Examiners about the Application of Critical Research Skills

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ABSTRACT This research was undertaken against the background of increased pressure by government on Higher Education Institutions in South Africa to increase throughput and participation rates, but also to improve quality at the same time. Research supervision is one of the aspects of academic life that is most affected. Supervisors accepted a whole range of accountabilities and adapted their supervision styles as part of a more personalised approach to supervision. A number of external examination reports have been included in this study. The researchers aimed to get a better understanding of certain aspects of external examination reports of Masters Dissertations to investigate to what extent the application of critical research skills have been applied in these dissertations by external examiners. It was found that many students lacked the ability of clear argumentation and to present work that is conceptualised logically. They found it particularly challenging to present coherent reports that illustrate the development of a piece of research within a framework where the problem statement and research aims were treated as central aspects. Finally it was proposed that the current practice of supervising students at the university should be reconsidered. Students' dependence on supervisors, should be augmented by including structured and open opportunities for the development of research skills.

INTRODUCTION

As far back as 1978 the well-known visionary leader of UNISA, Prof Theo van Wijk said that:

Universities are increasingly being called to account. We must not be under any illusions as to the universal disillusionment with institutions of higher education. Universities are no longer in an unassailable and privileged position. Accountability has taken the place of privilege. To put it bluntly: just as no investor will be prepared to gamble on a concern which does not show dividends, state and society cannot be expected to invest heavily in higher education if institutions of higher education do not show returns ... It is becoming increasingly difficult to explain drop-out and failure rates (Liebenberg 1988)

This insight became a reality after 1994 with the publication of the Higher Education Act (Ministry of Education 1997), the National Plan for Higher Education (Ministry of Education 2001), and the establishment of the South African Council on Higher Education, in terms of the Act in 1998. Universities have indeed been called to account in different ways in the last 10 to 15 years.

Insofar as supervision practices in particular

are concerned, increased pressures were brought to bear by way of increased graduate output rates, stricter quality assurance measures as well as imperatives of funding. These issues were addressed, amongst others, by the so called 'Policy and Procedures for Measurement of Research Output of Public Higher Institutions' (Ministry of Education 2003), as well as the document on 'Funding of Public Higher Education: a New Framework' (Ministry of Education 2002).

As reported by Le Grange and Newmark (2002) in the case of the University of Stellenbosch, for example, the annual completion rate for Masters students was between 21 percent and 24 percent in 2001. One suspects that very few South African universities had better completion rates during that year, and this trend is probably still continuing at some universities. In order to address the challenges of such a poor completion rate, universities were compelled to take a critical look at the state of research in their respective institutions. In many instances this focus led to the introduction of urgent self-investigation measures to increase research throughput rates.

A core element of this exercise lies in the field of research supervision. It is a known fact that

some universities designed and offered a variety of courses, and involved staff and postgraduate students in capacity-development activities that were aimed at improving supervision practices and research output (Lues and Lategan 2006 ; Le Grange and Newmark 2002). Various authors reported on this renewed emphasis on changing and improving supervisory practices (e.g. Ngcongo 2001; Lessing and Schulze 2002; Christiansen and Slammert 2005). Such articles invariably focused on the functioning of different supervision models as well as on supervisors' accountabilities and students' responsibilities, which are usually closely linked to what is referred to in this article as the 'application of critical research skills' as a criterion for the assessment of dissertations.

Supervision Models: Opposing Approaches

A number of supervision models are discussed in the literature. It seems as if the 'under your own management', and the 'personalised mentoring approach' are at the two extreme ends of the scale. Whereas the former model is based on providing support as and when required by the student, the latter model is heavily dependent on input from the supervisor (Lessing and Schulze 2002; Mapesela and Wilkinson 2005). In reality the very existence of these two models means that although supervisors should be aware of, and sensitive about the demands and challenges that higher education institutions and individual supervisors are facing in the area of research supervision, it must also be kept in mind that 'it is not the task of the supervisor to write the thesis, edit the language or find solutions for research problems' (Deist as quoted by Lessing and Schulze 2002). The supervisor should therefore guide, support and encourage the student in such a way that he/she can produce an acceptable dissertation.

The renewed interest, particularly in the accountability of researchers, is closely linked to the mentoring approach to supervision. In applying this approach no effort has been spared to elicit the views of postgraduate students on personal and academic issues which influenced their studies, as well as on challenges, needs and problems they encountered during the writing of dissertations (Mapesela and Wilkinson 2005). The perceptions of students with regard to different aspects of their studies, the expectations of their

supervisors, as well as their views on supervisors' behaviours that hindered the fulfillment of their expectations, have also been recorded at length (Ngcongo 2001). The findings of such studies together with the 'indicators of effective and ineffective postgraduate supervisors' (Lee 2007) are some of the factors that lead to supervisors being made officially accountable to perform certain duties and to behave in accordance with certain procedures and guidelines (such as those stipulated in the code of conduct for supervisors and promoters of the North-West University) that form part of the Manual for Postgraduate Studies (MPS). In this document it is stated that a: research supervisor, who has agreed to supervise a student, must ensure that the student develops continuously as an expert in the research field; shall guide a student through the different phases of a research project; assess submitted work according to a specific protocol ; guide the student with regard to the ethics of research; maintain a relationship with the student where the emphasis is on motivation and manage the project in a logical and systematic way (North-West University 2008a).

The responsibilities of students are usually linked to specific requirements for the completion of dissertations. In the case of the North-West University (2008a), for example, students are told in detail what steps to follow to write dissertations. Their responsibilities with regard to the writing of dissertations are spelled out on a step-by-step basis, from the formulation of the title to the problem statement, to the method of investigation and to the division of chapters. There is a correlation between these steps and the official examination criteria that appear in the MPS. Supervisors are instructed to provide answers to a number of questions on each of the following aspects in the examination report:

- the topic;
 - the problem statement, aims, and, where applicable, hypotheses or a central theoretical statement;
 - the research method; study of sources, and
 - language and style, technical composition, care and finish (North-West University 2008a).
- In another document that is sent from the Mafikeng campus to external examiners, they are requested to:
- report fully on the candidate's understanding of the nature and purpose of the investigation;
 - acquaintance with relevant literature;

- understanding of scientific methods;
- ability to evaluate and interpret findings;
- handling of research techniques;
- presentation of the technical and linguistic aspects of the dissertation, and on
- the publishability thereof as a whole or part (North-West University 2008b).

Examiners are also requested to provide a recommendation as well as a percentage grading where applicable with regard to four categories that can be summarised as follows:

- accepted;
- referred for minor amendments to be certified by the supervisor;
- referred for major amendments to be certified by both the external and internal examiners and
- rejected (North-West University 2008b).

It is clear that the requirements for the completion of dissertations are normally used as a foundation for the establishment of criteria for the assessment and evaluation of final products.

Aims and Focus of the Study

In this article an attempt will be made to focus on those aspects of the requirements that deal with the application of critical research skills in dissertation writing. The emphasis will thus be on competencies associated with successful research, which refer to the ability of the student to 'apply appropriate research techniques, to analyse data and to write reports that are coherent, and show critical depth and originality' (Swane-poel and Moll 2004). Lee (2007) also refers to the application of critical thinking in research when he describes research as a 'process of discovering, uncovering or creating underlying meanings.' Christiansen and Slammert (2005) are of the opinion that 'research serves to question and challenge existing solutions, perspectives, habits and politics'.

More specifically the aim of the study is to get a clearer understanding of the sections in external examiners' reports that deal with the application of critical research skills. In doing this, it is important to understand that, even though an examination report is, in the first place, an instrument that is designed to assess a student's work in terms of normal dissertation-writing requirements, it can and should also expose weaknesses in the student's abilities to display critical research skills as well as in an institution's

supervision system and in the practices followed by individual supervisors.

If used correctly and with discretion, the findings of this article can therefore be used to enhance supervision practices at the North-West University. It is further hoped that supervisors from other institutions will also be able to identify with the issues explained in this article, and make use of the findings to improve their own practices.

CONTEXT AND METHODOLOGY

This study was conducted in the Postgraduate School of the Faculty of Education of the North-West University (Mafikeng campus).

The authors are an Associate Professor and the Director of the Postgraduate School respectively. Both are closely involved in the management and supervision of Masters dissertations, and more specifically in studies that are conducted in the field of Educational Management.

A number of examination reports have been scrutinised, with the idea to provide feedback to students and their supervisors on changes that had to be made to dissertations. The effective implementation of these changes to dissertations was complicated by the fact that two permanent and three part time staff members, who acted as supervisors, were no longer available for supervision, as they had left the university. This meant that it was not always easy to establish clearly whether all students received proper and structured supervision during the year and/or to what extent all students (particularly those who did not complete) worked consistently. Nevertheless, the authors examined 12 external examiners' reports that were received between November 2007 and April 2008. Feedback was then given to individual students in order to enable them to effect the necessary changes as required by external examiners.

From this initial analysis the need arose to conduct a more scientific analysis of external examination reports by including the 12 reports as primary sources in a comprehensive study with the focus to get a clearer understanding of the application of critical research competencies that were highlighted by examiners in these reports. For the sake of confidentiality it was not possible to mention the names of the students or examiners of these reports in this article. A decision has therefore been taken to number the reports from

a-j and to indicate them as such in the list of references.

As a starting point, and in order to get to a clearer understanding of the concept of *critical research skills* we consulted a number of journal articles on research supervision and other closely related topics. This was supplemented by a study of the completion requirements of dissertations of the North-West University (2008a), as well as the instructions that are sent to external examiners from the Mafikeng Campus (North-West University 2008b).

In addition, interviews were conducted with six senior colleagues in Educational Management at three Southern African Universities. The interviewees are all thoroughly experienced in supervision and in examining dissertations from a number of universities. Two of them acted as external examiners for some of the dissertations that have been included in this study. We could therefore also not mention the names of these interviewees, and hence numbered them from a-f in the list of references.

The interviews basically consisted of two predetermined questions, but also took the form of a conversation 'with the idea that the researcher explores with the participant her or his views, ideas, beliefs and attitudes about certain events or phenomena' (Nieuwenhuis 2008).

The questions that were used for these interviews dealt with the:

- quality (understanding of the application of the term critical research skills) expected by examiners from dissertations and
- the different categories in the examination report of the North-West University that examiners are expected to report on, as well as on other related problems that they experience as external examiners.

FINDINGS FROM INTERVIEWS

The main findings from the interviews can be summarised as follows:

(i) A better understanding of the application of critical research skills expected by external examiners was achieved

One of the participants responded that 'the same standard as for doctorates' is usually applied to Masters dissertations (Interviews 2008c). However, during the interview it became clear that in reality research supervision for a Masters degree is still heavily dependent on input

from the supervisor, and there is considerable emphasis on the rigour with which the student conducts the research. The main requirement seems to be the ability to conduct research or to demonstrate familiarity with the academic debates on a particular issue and not to display originality or to deliver publishable findings. Participants indicated that when they examined dissertations, the basic requirements, such as:

a clear and unambiguous formulation of the research problem, adequate control of the theoretical basis, linked to a thorough knowledge of the related literature, the selection and efficient usage of suitable research methods, and the ability to produce a research report of acceptable quality in terms of depth, scope, creativity, innovative thought and possible contribution to the field of education (UNISA 2008) are regarded as very important criteria.

When specifically asked about the in-depth requirements for dissertations, such as critical research skills, that were implied in the previous quotation, the participants commented on the lack of intellectual grasp by students, and on the fact that descriptions and even compilations rather than theoretical analyses were found in many dissertations. In this regard special reference was made of the lack of critical engagement with the relevant literature, and the apparent inability of some Masters students to display a clear understanding about the correct usage of research methods as well as insight into the analysis of data. One of the participants even commented that some breadth but very little depth of scholarship is usually shown in literature studies and that 'more literature is not necessarily always better, sometimes it is just more' (Interviews 2008d). For him an important competence that students have to display is to cut down on sections of the literature and to clarify arguments.

On research methods, it seems as if in the field of Education Management in particular, lecturers preferred that students conduct qualitative rather than quantitative research. Triangulation can then be achieved, by for example, carrying out observation as well conducting interviews. In any case, there was a strong feeling that the whole study usually 'stands or falls by the degree to which the research aims are successfully addressed in the literature study and in the chapters on the re-search methodology' (Interviews 2008 f).

(ii) There is a difference of opinion amongst

the interviewees on the degree and usage of prescribed categories for examination purposes.

Some of the participants use their own categories, while others feel that not only main categories, but a detailed division of categories, linked to an allocation of marks, should be provided. Examiners who use their own categories are conscious of expressing their understanding of the *originality* and *contribution to knowledge* aspects of dissertations. It is maintained that one should 'look for something new and something worth passing on' (Interviews 2008f) in all dissertations. By using their own categories they can also ensure that dissertations from different universities are evaluated consistently and fairly.

The other view is that all universities have their own set of requirements, which could either include a breakdown in terms of percentages or grades, for the different categories. The task of an external examiner is only to apply these grades in an almost mechanical way by preferably allocating marks for specific sections of the dissertation. The argument for this line of thinking is that the examination process will be 'more accurate and students will also get a better idea and understanding of their total marks' (Interviews 2008a).

Analysis of External Examiners Reports

A number of external examiners preferred to use their own (or those of their universities) criteria rather than the criteria provided by the North-West University. The criteria used for reporting are in any case closely linked to the prescribed ones, and cover the most important requirements. Apart from not always using the prescribed categories, the only noticeable difference lies in the fact that some examiners prefer to report in a narrative format without sub-headings, while others report on a chapter-by-chapter basis. One examiner includes the heading, '*academic standard*' as a category. Under this heading she then discusses aspects that deal with conceptual clarity, logical argumentation, focus of investigation and relevance of information included in the study (Examination Reports 2007h and i).

When making final recommendations with regard to the grading of dissertations in terms of the four examination categories, mentioned, the only point of contention that seems to arise, is where an examiner grades a dissertation in the

second category, namely *referred for minor amendments to be certified by the supervisor*, and awards a low percentage, such as 50 percent, in conjunction with a whole list of changes that must be made by the student. (Examination Reports 2007h and i). In such cases it is debatable whether the number and substance of changes required did indeed justify a 'pass' percentage because the supervisor then seems to be left with the responsibility to orchestrate a major revision of the dissertation, whilst it has already been passed (50%) by the external examiner.

In terms of the aim of the article namely, to investigate the degree to which the application of critical research skills have been displayed in dissertations, the following comment of an examiner should be noted:

I trust I have done this study justice. I appreciate that my response is critical and hope it will be received in the spirit in which it is written, namely to encourage a critical approach to our research thinking and practice. The complex issues facing schooling in South Africa demand a carefully thought-out response that will produce research of real value (Examination Reports 2007b).

Specifically, the following findings can be highlighted from the examination reports:

(i) The conceptualisation of dissertations, including the establishment of a focused framework, the determination of starting and end points, the creation of links between critical elements and the logical development of investigations, are crucial aspects that were pointed out by examiners as shortcomings in various dissertations.

Closely related to these criticisms is the lack of coherence and logical development shown in some studies. One examiner, for example, pointed out that in a particular dissertation 'the study lacks a clear focus and includes many irrelevant sections... (and) the title and problem statement are not linked at all' (Examination Reports 2007h).

Another examiner said that 'most components of the findings are not done in a systematic way, and do not relate to each other; thus the lack of coherence in the study' (Examination Reports 2007j).

From these and other comments by examiners it seems as if many students found it difficult to provide logical arguments for the development of their dissertations and to illustrate how the different elements fit together.

(ii) Literature reviews are in most cases sufficiently comprehensive and addresses a wide range of related issues, but examiners indicated that students tend to use descriptions of other work instead of appraising contributions critically.

One examiner gave examples of extensive summarising of a single author's work, and clearly said 'that this does, of course, not constitute a literature review... (and) I find no scholarly engagement with, and critique of any academic literature, such that one would expect in a literature review.' (Examination Reports 2007b).

In another report it was mentioned that the 'literature review does not review any literature' (Examination Reports 2007f). It was also said that the literature study was not orderly, and was based on an unfolding model, but that the student 'went into a tangled web in her literature study and this led to unclear findings ... that looked like a hotch-potch of ideas all crumbled into one' (Examination Reports 2007e). Generally speaking, it could be said that there was not sufficient proof of scholarship which can be seen as the intellectual capacity to read the literature, to arrange it, to put it in order and to critically analyse it in the dissertations.

Insofar as competences, regarding the application and interpretation of data are concerned, examiners expressed serious concerns about various aspects that deal with the sections in dissertations on the handling of scientific methods and research techniques. It seemed that a number of dissertations lacked methodological sophistication; that students failed to handle methodological issues in a critical way and to provide substantiation for doing the research within a particular methodology. It was also mentioned that some of the data did not serve any purpose, was not linked to the research problem and did not unfold as per the research questions (Examination Reports 2007a). In one report it was quite clearly stated that 'the candidate needs to explain to the reader what *he did in his study*. For example, who was interviewed, how they were selected, where were the interviews conducted, how did he address the potential disadvantages, how did the interviews go, and so on' (Examination Reports 2007f). It is clear that this examiner questioned the ability of the candidate to apply theoretical information, on methodological issues, to his particular study.

(iii) On the analysis of data it was also reported that some of the questionnaires were interpreted

in such a way that no deeper understanding was achieved.

It was for example pointed out that in a particular case a candidate did not display any depth of analysis and that 'the data from the questionnaires and interviews revealed very little' (Examination Reports 2007a).

Another examiner reported on the misinterpretation of some data, and about the fact that 'some interpretations were not aligned with what the data actually show' (Examination Reports 2007f). It was also observed that in some cases 'the interpretation of results were not discussed and seemed to be meaningless in its current format' (Examination Reports 2007h). In this regard there seemed to be agreement amongst various examiners that the kind of problems investigated by students should have been done in a qualitative way rather than just doing quantitative analyses all the time. It was even said that 'interviews should include rich discussions and not any numbers at all' (Examination Reports 2007h).

Another recommendation was to use narrative write-ups rather than tabular explanations in analysing data (Examination Report 2007a). The point about the necessity of qualitative investigation was probably best made by the examiner who stated that:

The data reveal the key shortcoming in the use of a questionnaire to acquire an understanding of a dynamic human issue and show why some prominent researchers would question the value of a questionnaire at all for this kind of research purpose. It also shows up the need for in-depth interviews to really get to grips with complex human issues (Examination Reports 2007 b).

CONCLUSION

This research was undertaken against the background of increased pressure by government on Higher Education Institutions in South Africa to increase throughput and participation rates, but also to improve quality at the same time. Research supervision is one of the aspects of academic life that is most affected. The researchers conducted this investigation in the Post-Graduate School at the Mafikeng campus of the North-West University. Their aim was to get a better understanding of certain aspects of external examiners reports of Masters disser-

tations that relate to the application of critical research skills in the writing of dissertations. In order to accomplish this aim a number of external examination reports as well as some related articles were studied. Interviews with senior academics, who are heavily involved in the external examination of dissertations, were also conducted.

Interpretation of the results indicated that the key concept, *critical research skills* has to do with the intellectual grasp and depth of scholarship displayed by Masters students. It is also closely linked with conceptual clarity, deeper understanding and logical argumentation.

In this study the analysis of the application of critical research skills in dissertations were dealt with under three broad sections namely, the conceptualisation of dissertations, literature reviews and the application and interpretation of data.

With the analysis of data it must be kept in mind that the reports that form part of the investigation needed to be amended or corrected in some or another way. This meant the final conclusions would give a more negative picture than what would be the case if a study of all the candidates in the particular examination period were to be conducted. Nevertheless the reports indicated students from this particular group showed serious shortcomings with regard to the application of critical research skills in their dissertations. They found it particularly challenging to present coherent reports that illustrate the development of a piece of research within a framework where the problem statement and research aims were treated as central aspects.

With regard to literature reviews it was clear that students lacked the ability to do critical appraising of other contributions. They tended to describe and summarise rather than to synthesise and criticize the available literature. In fact, it was evident that students displayed serious problems in mastering the theoretical basis of academic work required at this level.

On the application and analysis of data it was explicitly stated that students failed to handle methodological issues in a critical way and that not enough substantiation was provided for doing the research within a particular methodology. The way in which the data was presented and explained in a number of dissertations lead examiners to emphasise the importance of qualitative methods and narrative write-ups in data analysis, and not to consider quantitative approaches as an only option.

Finally, we believe that this study showed that the current practice of supervising Masters students at the university should be seriously reconsidered. The process whereby students are heavily dependent on the assistance of supervisors, should be augmented by including structured and open opportunities for the development of critical research skills. This should include opportunities to get involved in qualitative studies; in morphological analyses of literature; in conducting internet searches; in designing research projects and in writing well-structured and critical academic reports.

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