GRADUATE STUDENT SCHOLARS EMBARKING ON RESEARCH: ASSESSMENT OF MASTERS' MINOR THESES IN AN AUSTRALIAN UNIVERSITY

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ABSTRACT

Higher-degree thesis assessment has recently been receiving a fair amount of attention from the education research community, examiners' reports being the starting point for many of the inquiries. Most discourse focuses on PhD dissertations and tends to neglect less advanced academic works such as Honours' theses, Master's theses and Master's minor theses. Writing at these levels is, however, of vital importance considering the fact that many students go through it not only to lay the foundation for their early research experiences but also to produce the good results that allow students to get accepted and proceed into PhD programs. This research article presents a systematic evaluation and analysis of 47 reports from examiners of students' M.Ed. minor theses written by graduate students at Monash University in Australia. Employing thesis examination reports as data, the project investigates the strengths and weaknesses of the Masters' minor theses written. Among different criteria on which a thesis is judged, choice of suitable topic and overall quality of presentation have been addressed relatively well, while data analysis, interpretation and literature review appeared to be the most difficult. Lack of critical thinking was identified as a common weakness, and writing quality played a significant role in deciding the outcome. There was generally a good level of consistency in assessment practices across different reports, with the exception of minor rules and guidelines. Certain influence was also exerted on the evaluation process by examiner's background and level of engagement with the topic.

Keywords: assessment, Master's theses, examination reports, student researchers.

Introduction

Discourse on the 'what' and 'how' of thesis examination has increasingly become a major concern in knowledge assessment. Over the recent decade a considerable expanse of research has been conducted into analysis of thesis examination based on examiners' reports. On the positive side, most examiners express optimistic perception of candidates' research efforts with a tendency, as highlighted by Mullin & Kiley (2002), to pass almost all the theses that have been recorded in current studies. Not only do examiners highlight the expected academic standard but also provide concrete feedback to assist candidates in reaching such standard (Kumar & Stracke, 2011). On the constructive side, concerns are given to the need to cope with undesirable writing quality (Noble, 1994), poor reader-friendliness (Johnston, 1997), low ability to engage examiners (Holbrook, Bourke, Lovat & Dally, 2004), the dominant power role manifested by the supervisor's name quoted repeatedly in the thesis (Lovat,

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Monfries & Morrison, 2004) and the need for more critical appraisal of the relevant literature (Holbrook, Bourke, Fairbairn & Lovat, 2007).

Arguably, examiners' abilities, roles and previous experiences may affect the assessment. Inexperienced examiners may have shortcomings that actually can harm the thesis examination process because of misjudgement. They may weigh the thesis by connecting it with the knowledge and perspectives earned from their previous postgraduate study rather than the broader understanding of the field. Some may approach a thesis based on their own ability and mark down the candidate's work which reflects a quality less than the quality they are capable of producing (Mullins & Kiley, 2002). Others may appreciate the thesis according to the role they play, whether it is the role of an expert, a listener or a research partner (Lovat, 2004). Lack of experience in thesis examination and supervision may also lead to poor decision when it comes to theses of a marginal quality (Kiley & Mullins, 2004).

Theses after all are examined by human minds with different resources, cultural backgrounds, expertise, priority, abilities, interests, preferences, individual traits, thinking complexity and history of examining previous works. For this reason it is often hard to expect two readers to always produce similar judgement. Research has indicated that supervisors' and examiners' perceptions of students' theses might not be the same because their different experiences with the procedure and with the thesis product might construct different impression (Lundgren, Halvarsson & Robertsson, 2008) and such individual experience exerts influence over what good quality means for each reader. This realisation prompts the need to develop some awareness of factors that might interfere with the fairness and stability in thesis examination at all levels of thesis writing.

Although assessment is prone to some degree to subjectivity, research on thesis examination in Australia has demonstrated a positive degree of consistency among examiners as well as stability in the way quality is interpreted (Devos & Somerville, 2012; Holbrook, Bourke, Lovat & Fairbairn, 2008). Despite this, a large amount of such research predominantly takes place at the doctoral level (see, for example, Tinker & Jackson, 2000; Pearce, 2005; Leshem & Trafford, 2007) and assessment of students' research effort before that is often not recorded. Although the choice to research on PhD level work reflects the importance of drawing attention to the qualities of terminal-degree masterpieces, the discourse tends to neglect less advanced academic works such as Honours theses, Master's theses by research and Master's minor theses. Writing at these levels, however, is of vital importance considering the fact that many students go through it not only to lay the foundation for their early research experiences but also to produce the good results that allow students to get accepted and proceed into PhD programs.

This research article discusses the evaluation and analysis of 47 reports from examiners of students' M.Ed. minor theses written by graduate students at Monash University in Australia. The examiners come from a variety of Australian universities. The aim of the research is twofold, looking at what thesis examiners really seek as well as highlighting the most common strengths and weaknesses of the thesis writing business – keeping in mind the rationale that producing poor results from a minor thesis will impede the journey into the next level of academic study both

in terms of acceptance possibilities and with regards to research skills.

When handling a PhD dissertation the examiner is well aware of the importance of high-calibre work and the need to mark it thoughtfully otherwise misjudgement will cause damage to the candidate's career investment. When one reads a minor thesis arguably the pressure is less vigorous and examiners' reports, according to data in this project, show a broad range of details, lengths and thoughtfulness levels. This observation suggests that different examiners devote different amounts of time and degree of seriousness to the thesis examination responsibility. A study of examiners' reports of early researchers' work therefore is essential in understanding the process that helps decide how a candidate becomes qualified to move on to the next level and in understanding the nature of examiners' assessment practice across different higher-degree programs. The outcome of the study will assist student researchers in understanding what constitutes the quality of their writing and that of a research project; it is also hoped to characterize the nature of examiners' support during assessment practice.

Research focus

All the theses under examination are Masters Coursework theses from the Faculty of Education at Monash University. Comments come in slightly different formats, organized according to a set of assessment criteria, following the chapters of the thesis, or presenting thoughts in a single text referring to issues only by page numbers. The depth and length of the reports also vary from one examiner to another. Most examiners provide specific numerical feedback while some prefer to settle with a more impressionistic alphabetic grade. All of these variations mean that the examiners are comfortable with a multitude of ways to record their assessment.

The project employs thesis examination reports in order to investigate the strengths and weaknesses of minor theses and in doing so will address the following 3 questions:

- What aspects of the thesis do student researchers perform most effectively in?
- Which criteria do they have the most trouble with?
- What recommendations can be made to assist student scholars in their early journey into research?

Context of study

The study was conducted in the context of the Education faculty at Australia's Monash University, where Master's minor thesis (also referred to as 'coursework thesis') is a 16,000-word piece of assessment that provides a hands-on introduction to the research process and serves as transition from coursework to a PhD program for those students who seek an option to pursue academic career. Each candidate completes their thesis under a supervisor's guidance and upon completion the work is assessed by two examiners. The selection of examiners is not random but based on examiners' expertise and availability as well as supervisors' and candidates' preference. The examination process results in two reports, each of which includes a numeric mark, a grade and relevant comments, all deriving from a set of assessment criteria.

The data available for this study consist of 47 such reports based on a total of 34 theses produced in the recent academic years. The majority of examiners hold a doctoral degree while three are without one; a small number of them are professors or associate professors. A

good proportion of examiners come from Monash University and a smaller number come from other universities.

Analysis procedure

In order to make sense of the reports at hand in view of the research questions, two approaches were employed simultaneously, reflecting the nature of the available data. The grades given in each report were placed into a table and analysed quantitatively, while the examiners' comments formed the basis of the qualitative understanding of the issue. The assessment criteria addressed by the reports are as follows:

(1) definition and clarification of a worthwhile problem

(2) appropriateness and quality of the literature review

(3) suitability of design of the inquiry, and use of data gathering techniques

(4) analysis of data

(5) interpretation of data and validity of conclusions

(6) quality and appropriateness of presentation

Comments responding to each criterion were summarised by way of analysing for keywords and identifying themes; results were organized in a table. In cases where the examiner chose to organize their writing in ways other than following the above criteria, the categorization was done in simpler terms, classifying all comments as either positive or negative. Where available, other information was also collected and noted down, such as examiners' background (based on insider knowledge), examiner's emotional attitude and interest in the field (based on impressionistic analysis of the comments).

The volume of comments was measured in pages (which came to an average of around 2 pages, with a maximum of 6 and a minimum of under one page). Where the format of the report followed the assessment criteria (as was the case in 20 of the 47 reports), size of comments for each criterion was also recorded (measured in lines of text).

After being thus fully constructed, the table combines both quantitative and qualitative data and facilitates analysis which helps the researcher delve into the examination process and observe the variety and commonality within the practice of thesis writing.

Content analysis of thusly organised data has allowed identification of the common issues raised by examiners, the attitudes and levels of scrutiny given to particular aspects of a thesis, and the manner in which purported strengths or weaknesses reflect on grades.

Key findings

Good topic choice does not always make a good thesis

Out of the 34 theses under study, 12 have been explicitly recognised as having selected an excellent topic – in the sense that an inquiry into the issue is expected to make a worthwhile contribution to knowledge in the field, its focus is well defined and its usefulness to the academic community is spelled out in concrete terms. However, having come up with a good research focus does not seem to play a deciding role leading to good outcome for the thesis in terms of grades, satisfaction of requirements for independent research laid down by the university and the value of contribution the finished product makes to the academic discourse. In fact, 9 out of 12 theses received Credit or below, while only 3 were granted Distinction or High Distinction. It may seem counter-intuitive that appreciation of the topic by the examiner correlates with poor grades. One

should keep in mind, however, that the selection of topic is carried out at the initial stage of the project, in close cooperation with the supervisor. A well-defined topic may not therefore be perceived as the student's core achievement in the thesis-writing process. From the analysis of the reports in which appreciation of the topic choice particularly stands out, it appears that examiners use this criterion as a 'last resort' for giving positive feedback to a thesis which otherwise does not meet their expectations. In the reports that award higher grades, on the other hand, most of the comments address the content of the thesis and the topic is only mentioned in passing, if at all.

Critical thinking ability plays an essential role in thesis quality

Critical thinking reflects on candidates' ability to conduct good literature review. 9 out of 34 theses demonstrate poor ability in presenting the literature review due to an uncritical stance. Examiners describe the shortcoming as "largely descriptive literature review", "lack of critical commentary", "no contrasting views", "own position not stated" or "heavy reliance on one source". Only 2 out of these 9 theses evaluated in this way obtain a Distinction grade and the rest range from Fail to Credit. This implies that the majority of theses which show limited ability in identifying and critiquing the current discourse also reflect low ability in producing excellent work. Much of academic discourse on the role of critical thinking facility in academic success has pointed to the same direction in which this ability plays a vital role in students' capacity to interpret texts, refrain from bias and formulate convincing arguments (see, for example, Scriven, 1985; Halpern, 1998). Reed, J.H. (1998) also makes a strong connection between critical thinking and research inquiry, judgement-ability and analytical skills such as explain-ability and inference as well as methodological and contextual considerations.

Good writing is likely to lead to positive thesis outcome

Writing quality is a broad term, encompassing such aspects of text as errors, syntactic features and sentence cohesion (Witte & Faigley, 1981). Good writing does more than just making a thesis aesthetically pleasing – it plays an important role in communicating the research to the examiner. Submitting a thesis of low written quality, according to the data, can elicit two types of response from examiners: corrective feedback for errors and claims of poor intelligibility, accuracy and succinctness.

For example, 8 theses were criticised as repetitive and wordy in their writing and as a result, only 2 theses obtain a Distinction while the rest received a relatively low result (Credit grade). This reality suggests that poor writing abilities have a tendency to go with poor grades.

On the contrary, 15 theses are recognised as demonstrating clear, readable text and coherent presentation; out of which the majority (namely 10 theses) received a Distinction or a High Distinction grade and only 5 theses are given a Pass of Credit grade. This indicates a reasonable connection between good writing and positive thesis outcome. In particular, a good degree of readability either plays an important role in deciding positive results or shows that candidates with good writing skills are more capable of completing a high-quality thesis.

The same thesis can be assessed by two examiners with two conflicting evaluations

In many cases, two examiners present dissimilar views about the same

thesis with regards to various aspects of it and as a result award dissimilar marks and grades. In one extreme incident, a thesis is assessed by two examiners as representing two conflicting sets of qualities. While one reader is impressed by richness of the research work, the other reader finds it of a poor standard. The first examiner praises its topic as important, finds literature review comprehensive, remarks on methodology as well defined, acknowledges the valuable voice of the researcher, recognises rich data that support coherent analysis, and awards a High Distinction to the work. The second examiner, on the contrary, comments that the topic does not have a good significance in the field, finds the literature review uncritical, comments on the lack of a coherent methodological framework, complains about too much personal experience, views data analysis as lacking in depth, and gives the thesis a Credit. Such discrepancy in thesis assessment is likely to come from conflict between the two examiners' interest and this situation calls for the need to consider the relationship between thesis topic and examiners' background. The DDOGS COI Guidelines (2011) have recognised such conflict of interest as a frequent one and given a word of warning about potential bias. Review of examiners appointment procedure therefore is essential in maintaining fairness in the thesis examination process.

Few theses received highest and lowest outcomes

The widest range of results is Credit and the shortest range is Fail. Only 4 theses earned a High Distinction, 7 received a Distinction, 22 got a Credit, 6 have a Pass, and 3 failed. This picture suggests that although the majority of thesis candidates managed to reach a reasonable standard and pass, it is uncommon for theses to achieve the best academic quality and impress examiners. Arguably, examiners expect to see research work of reasonable value and award marks in a way that would reflect such expectation and maintain a good academic standard.

The relationship between outcome and the reported quality is not always consistent

Some reports highlight a large number of errors in the writing, which are related to both typographical matters and content, and then award the thesis a High Distinction. Some other reports praise the thesis to a great extent and point out almost no errors of any type but award the thesis with a Distinction. Examiners' comments for theses within the Credit range (by far the most commonly occurring grade in the dataset), fluctuate significantly from case to case in their level of criticism: some of the reports contain a balance of positive and negative feedback for each of the assessment criteria, while others are almost exclusively negative, yet all theses are awarded a similar score.

This lack of consistency between the apparent level of criticism and the awarded grade correlates with the finding by Lovat (2004), who discovered cases of overwhelmingly negative feedback given for PhD theses that were ultimately deemed of good quality.

Examiners pay a similar degree of attention to most major criteria

The key criteria for thesis examination include clarification of a worthwhile problem, literature review, research design, data gathering techniques, data analysis, data interpretation, validity of conclusions, and presentation. Most of these criteria received a reasonable amount of attention in the examiners' reports and no section was overlooked. Except for the sizes of comments on literature review and quality of presentation which vary a great deal

among examiners, the amount of attention given to the remaining criteria among various examiners seems remarkably similar. Putting all the reports together shows that the average size of comments given to literature review occupy the largest space in the report (13.65 lines); the 3 sections including research design, data analysis and data interpretation all takes up an equal amount of comments (between 10 and 11 lines on average).

Proportionally, each criterion accounts for an average of 15-17% of the total size of the report, save for literature review (24%) and quality of presentation (10%).

This result lines up well with the findings of Devos & Somerville (2012) and Holbrook, Bourke, Lovat & Fairbairn (2008) that claim reasonable degree of consistency in thesis examination at Australian universities.

Subjectivity comes into evaluation when minor rules are concerned

Despite the apparently high level of overall consistency in marking, examiners show a lack of agreement in evaluating minor issues including, for instance, length of title, appendices, number of headings, etc. For example, some examiners complain that the appendices are insufficiently referenced back to the thesis writing while others emphasise that it is 'not examiner's job to read appendices', so the candidates should refrain from distracting the reader from the main body of the text. Some complain about too many headings while others are concerned about not seeing enough headings in the text.

Some candidates meet certain criteria better than others

The criterion which a large number of theses have met the requirement of the most successfully seem to be the quality of presentation whereas the sections which candidates seem to experience most serious difficulty with is data analysis, which is followed by literature review and interpretation as the second most difficult tasks. The two sections which candidates seem to have the least trouble with include defining the research problem and data collection process. This picture suggests that to develop a good research topic and a clear focus is often not a problem (this step is carried out in close collaboration with the supervisor and the topic receives approval from the faculty before writing is commenced); gathering data seems to be a straightforward and non-problematic process; and presentation is also an easy criterion to handle. The trickiest part, which comes as a result of being inexperienced researchers, is how to handle data once they have been collected. As a consequence, analysing, interpreting and allowing data to reach a deep, rich, interesting and coherent set of findings remains a challenge facing most researchers at this stage. In addition, the ability to select the right literature and become critical of the discourse also requires a reasonable overview, knowledge and scholarly sensibility to be able to judge, juxtapose, compare, contrast, evaluate, take a position, make comments and express a professional voice which gives the reader a sense of where the field has moved.

Some examiners connect better than other examiners with certain topics

In a few cases, examiner's discipline, experience, preferences, expertise and personal view are reflected in the report. In particular, some examiners are more engaged by a certain topic than other examiners, evident in the fact that some provide brief, holistic reports while others come up with long reports filled with detailed comments, further discussion of the topic and recommend additional

literature. In one incident, it seems clear that examiners' appreciation of a topic plays a practical role in the assessment process. A Singaporean examiner who engages with a topic related to the Singaporean context demonstrates appreciation and enthusiasm for the topic choice, gives a number of positive comments compared to the second examiner's report on the same thesis and awarded 5% higher mark than the second examiner who wrote very brief and unenthusiastic comments.

Based on the findings outlined above, some recommendations can be made to students and supervisors in order to improve awareness of the examiners' expectations and improve the prospects of meeting these expectations.

Recommendation 1: Writing ability plays a certain role in the overall thesis quality

Arguably, academic writing quality could set examiners' overall impression of the thesis and influence both examiners' understanding of the thesis content and objectivity of judgement. According to the data, the extent to which the candidate's proficiency in written English affects the overall result can be a considerable issue. Some examiners seem demanding of the writing standard, evident in the fact that a large number of errors in the thesis have reflected the overall low outcome of several theses. The majority of reports, however, do not show signs of writing quality dramatically reducing the overall grade. In other words, even though 'quality of presentation', which includes language quality, is one of 6 major assessment criteria, it may or may not play the leading role in the final mark. Depending on how poor the writing becomes, it may or may not interfere into the overall quality of theses.

There are incidents in which low writing quality restricts examiners' understanding of the work and affects the overall reception of the thesis. On the contrary, there are other incidents in which low writing quality does not reduce the thesis outcome to a low grade. For example, three examiners are very critical of presentation quality and award low grades (two Pass incidents and one Credit) to theses which demonstrate flawed or inconsistent writing. Two other examiners are critical of writing presentation but refer to writing errors as minor, provide an extensive list of corrections and award a Distinction to the thesis.

Recommendation 2: Take note of the key weaknesses among all the theses

Three major weaknesses of most of the theses are in the area of data analysis and interpretation, literature review, and quality of presentation. In particular, a large number of theses have been criticised for their excessively descriptive habit and lack of critical thinking when processing literature and interpreting research data; insufficient theoretical resources in literature review or neglect of some essential literature in the field, interpretations insufficiently linked to theory; excessive reliance on secondary sources or heavy reliance on one source when reviewing relevant discourse; making unsubstantiated claims; low standard of writing including repetition, wordiness, redundancy, ungrammatical language, typographical errors and incomprehensible sentences.

Recommendation 3: What creates the best result is a matter of quality consistency throughout the thesis

There is no single most important value of a thesis that earns it the best result. In other words, making one of the 6 key components strong is insufficient to ensure a good outcome. For instance, comments such as 'good topic', 'well-written' in

the reports are not enough for examiners to settle on a good result. A thesis has to be good in as many ways as possible. It is noticed that positive comments occur in high concentration especially for theses which earn a High Distinction grade.

By the same token, there is no one single most serious problem of a thesis that leads it to the worst result but clearly a variety of factors lead to poor result. Though examiners often pointed out what the weakest part of the thesis is, the mark for that part is normally not the only poor mark. High variation of marks for different criteria is uncommon. In many cases, if one aspect of a thesis is deemed poor, other aspects are also likely to be within a similar low quality range.

Recommendation 4: Make sure examiners are selected based on their relevant expertise and interest

Writing in a clear and coherent manner is a powerful way of efficiently communicating one's thoughts, yet upon submission the work is on the mercy of the reader - the writer has no more say in the process. An examiner who is able to connect more closely with the topic will be in a better position to understand and appreciate the arguments being made. It may thus be worthwhile for students and their supervisors to anticipate the prospective examiners' areas of interest and expertise in order to match the thesis with a congenial audience.

Limitations

The major limitation of the present research is the unavailability of the actual theses. Relying solely on the examiners' judgement without matching the reports against the pieces of work they are based on means that some of the examiners' subjectivity will be inherently present in the analysis of strengths and weaknesses of the theses.

Conclusion

Having taken this opportunity to look at Master's minor thesis examination process from the vantage point of the examiners, the present study has supplemented existing research into PhD-level examinations and provided insights which may help in bridging the information gap between students, supervisors and examiners, to the mutual benefit of all parties involved, and the research community at large.

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