PHD THESIS DEFENSE

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ABSTRACT

A thesis oral defence is the culmination of research enquiryon a specific subject or project. The defence provides an opportunity for presentation and sustained argument in support of the findings. This is preceded by examination of the thesis by independent nominated examiners who do not communicate on the work as they grade the thesis. The examiners look for soundness of the methodology applied in research, its originality, creativity, innovativeness, impact to the field of the study and finally its suitability for the degree award. This presentation examines the completion process that culminates in the defence, in camera or in public, to a panel of examiners chosen by the university. The defence provides an opportunity for final improvement of the thesis with the candidate demonstrating the understanding of the topic of research, the contribution of the research work to knowledge, whereas the panel of examiners enrich the final document by offering their independent expert opinion on the enquiry and to finally provide swift and just judgement of the work. Sections of methodology, findings and the critical approach used by the candidate in relating the findings to existing knowledge in the field of study, determine the quality of the work. Conclusions should show the significance and impact of the research product that also support applicable recommendations.

INTRODUCTION

According to Webster’s 7th New Collegiate Dictionary, 1963, a thesis defense consists of an oral presentation providing evidence for a research position or proposition advanced by a candidate for scholastic honours. A candidate who has completed the required course work, in some cases, passed the required examinations to demonstrate his/her comprehensive grasp of the subject area and has completed the approved research to the required standard of the University, then the student is permitted to apply to the Board of postgraduate studies to orally defend the thesis. During thesis defense, the candidate maintains an argument or a series of arguments in support of the findings of the research. The success of the PhD thesis defense is determined by the results of the research contained in the thesis.

PRE-DEFENSE THESIS REVIEW

 Generally, before the defense of the PhD thesis by the student, most Universities require the student to presents the draft to various forums, including the Department and Faculty, research workshops, conferences and interested groups. Those present at these forums make critique of the research that helps to improve the answer(s) to the research question. The period also provides an opportunity to the student to gain more knowledge and skills in the presentation of the thesis to an audience. It is also the time when the student re-evaluates the issues at hand, incorporates any other important issues that may have been generated during the critique, and discards those that may be irrelevant to the research question. The student is also able to generate publishable manuscripts from the thesis before the thesis defense. The peer-reviewers of the manuscripts submitted to Journals for possible publication, help the candidate in improving further the presentation of some parts of the thesis. In some institutions, the student is required to have published or accepted for publication in International peer-reviewed journals, at least 3 to 4 papers out of the research, before defending the thesis. In Kenya, this requirement is pegged at a minimum of two papers before the thesis defense.

Once the student is satisfied with the thesis draft, the student in consultation with the supervisors notifies the University of the intent to defend the thesis. As soon as the notice is received, the Faculty
or the Department hosting the research makes the requisite arrangements for the constitution of a Thesis Examination Committee.

EXAMINATION OF PhD THESIS

There are generally several steps through which the examination of a thesis is taken:

1. Submission of a notice accompanied with a thesis abstract to the Board of Postgraduate Studies office or the equivalent, and the nomination of Examiners.
2. Approval of the nominated examiners, which in general is composed of a Chairman, external examiner(s), internal examiner(s), the supervisors of the student.
3. Submission of the final draft of the thesis (with the agreement with the supervisors and co-supervisors).
4. Receipt of the copies of the thesis by the examiners, with the requirement to promptly submit a written report on the thesis within a given period.
5. In some Universities, on receipt of the examiners reports, which should contain one recommendation from the following categories: (a) thesis can be defended. (b) thesis to be revised and re-submitted for re-marking. (c) thesis be rejected outright, and in some cases to be considered for another degree like Masters of Philosophy (MPhil).
6. In the Universities where such categorization as given in 5 is normally done, the Faculty/School, on receipt of the report, considers all the reports and makes the final decision on the classification of the thesis.
7. If the thesis falls in category (a), the faculty/School will in consultation with the supervisors and candidate set a date for defense, and a notification to that effect is made in writing and directed to all those involved, stating the decision of the Faculty/School. Copies of the examiners reports are forwarded to the Board of Postgraduate office or equivalent, School, Supervisors and student. If a resubmission is recommended, a repeat of the process is done, after the requisite concerns by examiners have been addressed. In this case the school contacts the examiners to determine their willingness to re-examine, and repeat the process. If the thesis is rejected outright, the student, supervisors and other relevant arms of the University are accordingly informed in writing, and sometimes with the examiners’ reports attached to the communication.

The Examination Committee is constituted by the University to examine the Thesis. As the basic premises for the integrity of a research are honesty and transparency, the examiners undertake to determine if these measures have been taken in the interest of the culture of decent scientific thinking and behaviour, while at the same time looking into the originality, creativity and innovativeness of the research. The examiners also look for the soundness of the methodology applied in the research, whether the data collected have been organised, analysed and processed correctly, the critical approach to existing theories and concepts, the balance in structure and clarity of the thesis, the impact of the work on the field of study and lastly whether the thesis fulfills the requirements of the academic degree sought with or without a distinction. A good thesis should provide an argument derived from the research, supported by facts and evidenced by the analysis of the data provided, and correctly related to other similar studies in order to provide a stand on the issue under the argument.

OBJECTIVITY OF THE EXAMINATION PROCESS

Once the thesis has been submitted, the student or the examiner should not communicate with each other regarding the thesis, nor should examiners communicate with one another or the supervisor(s) until the examination process is completed, as that would amount to a conflict of interest and the examination process should be terminated. All questions regarding the examination or defense should be addressed to the relevant University Office.

Examination Procedures

When the examiner(s) are confirmed, the thesis is sent for examination. The examiners have approximately four to eight weeks to evaluate the thesis and return the Thesis Examination Report. When the completed examiners’ reports have been received by the relevant University Office, and in many Institutions, only if the examiners or majority of examiners are all in agreement in passing the thesis as earlier provided, does the University then make arrangements for it to be orally defended by the candidate. If the thesis has not been passed by all or majority of examiners, the Board of Postgraduate studies will communicate with all members and offices concerned as described earlier.

In India, for example, the chain of approval span from the Departmental Research Committee, the Board of Studies, the Faculty and the Academic and Management Councils. On the advice of the Academic Council and Board of Studies, the student submits the Thesis. The Vice Chancellor then selects two examiners, preferably one external examiner (out of the country) and the other as internal examiner (from country), who reviews the thesis and submit
a report within one month. On receipt of the report and if the student has passed, a date is fixed for the defense of the thesis, when the student publicly defend the thesis in the presence of the external examiners preferably from India.

Other Universities, for example Toronto University, the examination committee will comprise of a three-person Thesis Committee, four other examiners who have had nothing to do with the work and of whom at least one is an expert outside the University. The oral defense is then held 8 weeks after the submission of the thesis, allowing for the external examiners to evaluate the thesis and write an appraisal that is read out at the beginning of the oral defense.

In most Universities in the UK, once the candidate gives a Notice of Intention to Defend the Thesis, the College Office contacts the Head of the student’s School to request for the nomination of examiners for the assessment of the Thesis. The Head of the School consult the student’s supervisors over the choice of examiners before submitting the nominations to the College Postgraduate Committee. There will be an external examiner, who will be approached informally by the Head of School to establish his or her willingness to act. The Internal Examiners are academic and/or honorary staff of the University. However, the College Postgraduate Committee has the responsibility to approve all the examiners, before the School informs the student of the names of the examiners. A Non-Examining Chair is appointed and must provide guidance during the defense but not express an opinion on the merits of the thesis. The examiners must have the requisite experience to examine PhD thesis. It is a supervisor’s responsibility to ensure that the student is informed of all assessment practice and requirements, including The Code of Practice for supervisors and research students. It is the student’s responsibility to meet his or her assessment deadlines, including Thesis submission deadlines and oral examination times and location.

For most continental European Universities, once the supervisor (and co-supervisor if any) consider(s) that the final draft of the thesis is ready for defense, the supervisor in consultation with co-supervisor and the candidate will propose names of members of the Examination Committee (or a jury as they are often called). These names have to be approved by the Department and submitted to the Executive Committee. However, the candidate is not allowed to contact potential examiners (or jury) directly. Once the Executive Committee approves the Thesis and the necessary corrections to the texts have been completed, the candidate is then requested to deposit four printed and bound copies of the thesis accompanied by a 300-word abstract with the Executive Committee. The thesis will then be sent to the examiners (or the jury) with the necessary instructions. Each examiner remits a report on the thesis within two months of receiving it. If a majority of the jury members ask for major revisions, the candidate has the right to decide whether to defend the thesis as it stands or to make changes. Such revisions, if made, have to be carried out within no more than six months.

In Amsterdam and Vrij Universities in The Netherlands, once the student through the supervisor issues notice of readiness to defend the doctoral thesis, the Dean of the Faculty convenes a Doctoral Examination Committee, made up of professors of the Faculty. This Committee appoints a Thesis Committee on the recommendation of the supervisor of the thesis, and this Committee is composed of the supervisor and four other members, one of which must be from the Faculty concerned. The co-supervisor is not included in the committee. Within thirty days of receipt of the thesis, the Thesis Committee must issue its recommendation by way of a majority vote to the Doctoral Examination Committee on the suitability of the thesis and any other issues or aspects relevant to the thesis, including any appraisal to be done. The candidate is informed of the decision made by the supervisor. Based on this decision of the Thesis Committee, the Doctoral Examination Committee releases its report on the quality of the of the research and its suitability for defense to the student. If the majority decision is positive, the Doctoral Examination Committee recommendations to the College of Deans to have the thesis proceed to public defense, and the student informed accordingly.

In the case of Nairobi University, at least three months before the thesis is submitted, the candidate through the supervisor(s) notifies the Board of Postgraduate Studies that the thesis is ready for defense. This notice has to be accompanied with an abstract of the thesis, and directed through the Chairman of the Department and Dean of the Faculty. The Dean, in consultation with the Chairman of the host Department and the Faculty Postgraduate Studies Committee (FPSC), make recommendations to the Board of Postgraduate Studies (BPS), the members of the Board of Examiners for the thesis. The membership of the Board of Examiners will normally consists of the Dean of the Faculty (Chairman), an external examiner, two internal examiners one of whom must not have supervised the candidate, two other persons competent in the candidate’s area of research (at least one external to the Department) and a representative of the Board of Post-graduate Studies. Within two months of the appointment of the examiners, the external examiner and the internal examiners are required to submit to the BPS an independent written assessment of the thesis indicating whether the thesis is adequate and satisfactory in form and content, whether it meets the requirement of the degree in present form and content or needs minor changes or is unsatisfactory.
and inadequate but contains substantial contribution to knowledge but needs substantially revision before re-submission for examination by a Board of Examiners or that the thesis is grossly inadequate and unsatisfactory and offers no scope hence the degree should not be awarded. It is on this basis that Board of Postgraduate Studies will make final decision as to whether the student appear for Thesis defense or have the Thesis re-examined after the required corrections or whether the student fails and hence no Thesis defense.

**THESIS DEFENSE**

A thesis defense is, therefore, a formality and a happy occasion, provided the results are good, well presented and that the presenter has the knowledge of the answer(s) and supporting evidence to the research question. During the defense, a panel of examiners, determined by the University as described earlier, and after it is satisfied that the document submitted by the candidate merits defense, present themselves for the defense. A thesis defense provides the student with an opportunity for the final improvement of the thesis, as after the defense some minor work may be done on the thesis in order to include any new suggestions derived from the defense. Consequently, the purpose of a defense is to provide the candidate with:

1. Independent and expert opinion that allows for a proper objective enquiry into the work done by the candidate and which they are required to judge.
2. Interactions among examiners of the thesis and candidate that offers an opportunity for the candidate to prove with evidence from the work done, the position adopted in the research by the candidate. The interaction prevents situations where the examiners simply draw up a list of thesis “errors” that had not been critically assessed and often inconsistent with another examiner’s list.
3. Helps in making a swift and just decision in judging the research work without delay.

On the day of the defense, in some cases the Chair of the Examining Board will have been determined or in other cases the members choose their own Chair by consensus. The thesis supervisor and co-supervisor (if any) are precluded from presiding over the thesis defense and have no vote. In most cases the Examining Board take its decisions by the majority of voting members participating, with the Chair having a casting vote.

The defense will normally consist of two parts, namely, a 20 to 30-minute synopsis of the research findings usually in PowerPoint format by the student and the question and answer session by the thesis defense Committee (and others present in the case of public defense). The first session is intended to provide an outline of what is contained in the thesis, during which session, the candidate showcases the efforts taken in undertaking the research, share the research findings with the examiners, peers, colleagues and members of the community at large (in the case of public defense). The short, concise, summarised statements formulate the flow of the presentation and make the most impact with the audience. The candidate should use appropriate diagrams, pictures and graphs in bringing out important information to the audience and to share key pieces of information in a visually stimulating manner, while providing a convincing argument about the value of the research and its significant contribution to the content area.

It is, therefore, important that the presentation is well organised for the examiners and other listeners to follow. The organization could take the format as follows:

1. Goal/objectives of the research (2 min)
2. Literature review/theoretical framework (5 min)
3. Methodology (5 min)
4. Findings (13 min)
5. Recommendations (5 min)

While the sections on findings and recommendations are the crux of the thesis defense presentation, the literature review, theoretical framework and methodological/ethical issues forms the backdrop and context for the findings.

It is during this second session of “question and answer” that many details of the research are usually revealed. The committee and the audience have a chance to ask any questions and engage in discussions with the candidate about the research. Their questions must be confined to the candidate’s research topic. Even though a general discussion may sometime follow, before the examiners retreat for deliberations in camera. The decisions by the examiners should be made on the basis of the thesis submitted to it and the way the candidate defended it. It is important that before the defense, the candidate should familiarize with particular areas of research interest held by the members of examining committee and other persons attending the defense so as to anticipate what type of questions could be expect and formulate appropriate answers. The candidate should practice with fellow graduate student through asking each other the possible questions that the examiners could ask, and practice giving answers to them.

In the United Kingdom, all examiners must participate in the oral defense, which may be conducted using technology such as video conferencing. The Internal Examiner is responsible for ensuring that all the necessary arrangements for the oral assessment are made, including the date and place of the oral, the chairing of it, and the names of all those participating in it, must be provided in advance to all those who are to be present (i.e. the student, all examiners, any Non-Examining Chair
and any observer). Where a Non-Examining Chair has not been appointed the Internal Examiner can chair the oral.

At Amstterdam and Vrij Universities in The Netherlands, it is the College of Deans, that is mandated by law to confer Doctorate degrees. The defense which lasts for one hour takes place in public in the presence of the Doctoral Examination Committee, chaired by Rector (or his/her representative) or Vice-Rector or a member of the College of Deans. The defense is made against objections raised by the Doctoral Examination Committee and other persons present but who may have given leave by the Rector to do so. After the defense, the decision made in by the Doctoral Examination Committee in a closed-session, through a majority vote of its members present. The chairperson returns to the defense floor, reconvenes the meeting and announces the decision of the committee, upon which the conferral of the degree may then proceed in line with the conventions of the University.

In the case of Nairobi University, once the Examiners reports have been received, BPS in consultation with the Dean of the Faculty concerned convenes a meeting of the Board of Examiners, to which the candidates appear for oral defense of the thesis. The candidate will appear for thesis defense, provided the candidate has fulfilled all requirements for thesis defense, including showing evidence of at least two papers published or submitted for publication to a refereed journal. During the defense, the Board of Examiners considers the examiners’ reports and any other academic matters arising from the candidate’s oral defense. A consolidated report and appropriate recommendation is prepared for submission to Senate through the Board of Postgraduate Studies within two weeks, with provisional results (for only where the recommendation of the Board of Examiners is unanimous for or against the award of the degree) being released to the candidate. However, where the recommendation of the Board of Examiners is not unanimous, or the recommendation is not consistent in material aspects with the reports of the examiners and the results of the oral examination, the matter is referred to the full Board of BPS for an appropriate recommendation to Senate. Where a candidate is required to correct a thesis he/she is given three months within which to complete the task. The award of the degree will ensue in accordance to the recommendations of the BPS as appropriately received from the Board of examiners. The Senate holds the power to permit a candidate to re-submit a thesis for re-examination in a revised form once only provided the candidate resubmits the thesis within twelve months.

In some other Universities, both internal and external examiners only mark the thesis without an oral examination being conducted. The only problem with this method is that it provides difficulties in reconciling some discrepancies and minor differences that may arise between examiners or between the candidate and examiners in an academically fair way. Nonetheless, thesis defense helps to establish the candidate’s knowledge of the field of research and whether the thesis and the student’s defense of it satisfy the requirements and regulations for the award of a PhD degree. The examiners are therefore expected to judge the candidate as: to either be admitted to the degree, admitted to the degree subject to amendments, admitted to the degree subject to revisions to the thesis, be permitted to submit a revised thesis for re-examination or fail to be admitted to the degree.

The most comforting factor to a thesis defense is that the candidate usually knows more about the study than do the examiners. In some cases, the examiner is asking because of the need to know more on what is unknown and expects the candidate to provide answers to it. The questions asked, in most cases are not difficult and the examiner should not unnecessarily attack the candidate. A few seconds of pause by the candidate to reflect before answering the question should be eminently reasonable to the panel. The candidate starting the answer with phrases, as “That’s a good question” can be useful, and could help in lessening any tension with examiners. The candidate should remember to provide simple answers to simple questions, but should it be necessary to resort to complexity, the candidate should begin by translating the question into familiar terms, and finally making an attempt to rephrase it in the language of the questioner. If for some reason an examiner proffers a question that put something in the research work in doubt, then it would be good for the candidate to first concede that the question does in fact impose a serious limitation on the applicability of the work done, but the results obtained should be interpreted in the light of the observations made. The examiner is then more likely to back off and even help answer it, whereas a straight denial may encourage the examiner to pursue the issue more ardently. The candidate should remember that the examiners have also standards to uphold and are not out to fail the candidate.

Thus, the defense period may look scary to the candidate, but as previously stated, it is the time the student has a chance to expound on information presented and to demonstrate the understanding of the topic of the research. It is possible for the candidate to be asked a question for which the candidate may not have an answer. This may be due to the examiner needing some information either out of interest (since you are the expert in your research) or because the examiner wants to see how the candidate thinks. There is no problem for the candidate to just say “I don’t know”, but it might be even better for the candidate to suggest something that would demonstrate
academic ability to think independently. If an examiner became real nasty, perhaps the candidate could calmly allow the examiner to demonstrate the nastiness clearly, a factor that could end up playing positively for the candidate with some examiners ending up supporting the candidate. The candidate should always be prepared to tell the examiners in brief the importance of the research, the new and good thing contained in the thesis, and the major contribution made to science.

In some Universities, like in the case of Toronto University, Canada, after the defense, the Committee discusses both the thesis and the oral defense, and vote under rules that require at least two negative votes for failure. However, by and large, most Universities will provide results in different options of either a pass or a failure as previously provided.

OVERALL EXAMINERS RECOMMENDATIONS

In general and as previously intimated, at the end of the whole process of the Thesis examination and defense, the examiners are expected to determine the following basic features of the Thesis:

a. Originality and creativity of the work.
b. Soundness of the methodology used in the analysis of the data collected in the research.
c. The critical approach of the results of the research to existing theories and concepts.
d. The balance in structure and clarity in style of the thesis.
e. The impact of the research on the field of study.

After considering all the mentioned factors, the examiners should come up with a verdict on the thesis in line with the following options:

a. Option one - the examiners have the opportunity to return a verdict of admitting the candidate to the degree sought, but subject to the correction of typographic errors without any amendments, meaning no amendments required other than typographical.
b. Option two - the examiners permit the admission of the candidate to the degree sought, subject to routine, non substantive, editorial changes suggested by the examiners.
c. Option three - the candidate be considered as admitted to the degree but only after addressing to the satisfaction of the Responsible Academic Officer, specific criticisms of the thesis as recommended by the examiners; and also after rewriting the thesis but without changing the overall aims or the substantive conclusions of the document.
d. Option four - the candidate be considered as not admitted to the degree, but the candidate be permitted to re-submit the thesis at a later date, as a revised version for re-examination. In this case, substantive changes are recommended by the examiners with major structural changes to the thesis or to the conclusions requiring new material or writing recommended.
e. Option five - the examiners return a verdict rejecting the Thesis and recommending for the inadmissibility of the candidate to the degree sought and barring the resubmission of the thesis.

After the defense, the normal procedure will be for the University Office to send the final results of the Thesis examination or and Thesis defense to all members of the Oral Defence Committee and to the Graduate Secretary/Coordinator of the unit and the student with the recommendations made.

PUBLISHING FROM THE THESIS

After the defense, the candidate can continue to publish the document in the form of a book or parts of it in the form of Journal articles. The publication permits the sharing of the scientific information contained in the thesis with colleagues, and forms proof of academic competence by the author.

During the process of thesis examination and defense, it is also important for the examiners to look for and detects any form(s) of plagiarism. If this is detected at any stage of the process, the thesis should then be returned together with a report of suspected plagiarism, citing sources of the original material plagiarized. And when that is done, it is prudent for the University to halt the examination process, investigate and institute disciplinary measures if found true. In many institutions, the thesis is taken through an electronic mechanism to check for plagiarism of scholarly works before being placed in a repository for future reference.

When publishing the document or parts of the document, and in order to avoid disputes and other problems with regard to authorship of Manuscripts obtained from the document, it is wise to address the issue of authorship during the planning stage of research or as the project evolves and a written record of the decisions kept. Guidelines on authorship and contributor-ship can be found on the website of the International Committee of Medical Journal Editors (ICMJE). The ICMJE recommends an author as one who must have made:

1. Substantial contributions to conception, design, acquisition of data, analysis and interpretation of data.
2. Contributed to the drafting of the article or revising it critically for important intellectual content.
3. Undertook the final approval of the version to be published.

The acquisition of funding, collection of data, or general supervision of the research group alone does not constitute authorship. All persons who qualify as authors should be listed and all contributors who do not meet the criteria for authorship should be listed...
in the acknowledgments section.

There is another type of authorship called “Gift authors”. These are authors who have not made a significant contribution to the research, and therefore do not fulfill the ICMJE criteria, but they are often senior figures (e.g. heads of department, colleagues added on the understanding that they will return the same favour).

However, in considering authorship, the problem of the order of authorship also usually comes up. It is prudent right from the beginning to make a joint written decision on co-authorship, detailing the issue. In some instances, authors are listed alphabetically, sometimes with a note to explain that all authors made equal contributions to the study and the publication.

In conclusion, for the candidate to produce a good thesis and defend it successfully, the Candidates should not only be psychologically prepared, but also be able to competently provide to the examiners crucial research findings supported with data analysis, that show the importance and the impact the research has made to science.

On the contrary, it is the duty of the examiner to look for certain facets in the thesis that merit the passing of the candidate for a research work that has taken time and resources to produce. The examiner should further be able to establish the extent to which the research work is original, creative and innovative, besides the way materials in the study were used, and to determine the appropriateness of the processing of the results, including the analysis used. The final aspect for the examiner is to establish whether the candidate used critical approach to existing theories and concepts to relate the results obtained in the study, and the impact of the results in the field of study. It is not the duty of the examiner to lambast, quarrel or degrade the student during the Thesis defense.

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