ARTICLE

SHORTCOMINGS IN LIBRARY AND INFORMATION SCIENCE (LIS) PHD PROJECTS: ANALYSES OF EXAMINED THESES AND SUPERVISED FOR THE PERIOD 2008–2016 AT SELECT UNIVERSITIES IN EASTERN, WESTERN AND SOUTHERN AFRICA

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ABSTRACT

This article presents the experiential perspectives of the authors on the shortcomings in LIS PhD theses submitted for examination or supervised in 15 purposively selected universities in Kenya, Uganda, Botswana, Ghana, and South Africa. In all, 36 theses were examined and/or supervised for the period 2008–2016. The shortcomings discussed here were isolated in the conception of the research topic, introduction (background to the study), review of literature, selection and use of theory, presentation and discussion of the results, as well as in the technical presentation of the theses. The authors conclude that the shortcomings identified in the LIS PhD projects may be attributed to a number of factors including, but not limited to inadequate preparedness on the parts of supervisors and the candidates, and limited support given to PhD candidates. The authors recommend rethinking the mode of offering the LIS PhD programmes from being exclusively research-oriented to a hybrid model of course work and research. The issues raised in this article have implications for PhD supervision capacity building, postgraduate support and mentorship.

Keywords: doctoral studies; library science research; PhD thesis; postgraduate supervision; scholarly publishing

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INTRODUCTION

This article presents the experiential perspectives of the authors on the shortcomings they have commonly encountered in examining and/or supervising LIS PhD theses at 15 purposively selected universities in Kenya, Uganda, Botswana, Ghana, and South Africa. The article is based on analyses of 36 theses that were examined and/or supervised during the period 2008–2016. The identified shortcomings were isolated in the conception of the research topic, background to the study, review of literature, selection and use of theory, presentation and discussion of the results as well as in the technical presentation of the thesis.

This article is motivated by the fact that the completion of a PhD project is a major academic undertaking and a mandatory requirement for the award of doctoral degrees in most universities around the world. Perry (1995) in this regard asserts that PhD research in most fields of study requires the candidate to endure years of dedicated and solitary work usually in the mainstream of a discipline or combining two disciplines. A PhD study according to Moses (1985) should make a distinct contribution to a body of knowledge through an original investigation or testing of ideas, worthy in part of publication and competence in research processes.

By definition a PhD thesis is a text or project which sets out a certain problem that the student has worked on, possibly within a larger team, under guidance of one or more supervisors (Ruger, 2013). In addition, the PhD thesis delineates the limitation of the work done or the conclusions drawn and outlines possible future research directions. Furthermore, a PhD thesis comprises an argument or series of arguments that describe and discuss the research being investigated (Philips and Pugh 1994, 23). Morrison (2010) explains the difference between a Master's and PhD degree when pointing out that on the path of education, a Master's degree might come before a PhD, but a PhD is the higher academic achievement. While students do not always have to follow this path, typically, the Bachelor's degree is a 'first' degree, the Master's is a second degree, and a Doctoral degree such as the Doctor of Philosophy (PhD) is a final degree. Lean.org (n.d.) states that a doctor of philosophy or PhD degree is one type of doctoral degree and is generally considered the most advanced degree available in any particular field. Moreover, the PhD degree takes longer to complete, typically, 5–6 years or more, while a Master's degree can be completed in two years.

In writing a PhD thesis, the candidate motivates, defines and presents approaches to addressing the problem. The candidate also identifies clear gaps and a framework (usually a theory) for addressing them. Besides, the PhD candidate is expected to provide clear evidence of original contribution of their study to the body of knowledge in the chosen field (Dwivedi, Ravishankar and Simintiras 2015; Philips and Pugh 1994, 23) and afford new insights into little understood phenomena (Peters 1997, 177). The candidate must also adduce the originality of the PhD project by showing evidence of independent

and critical thought. Badley (2009, 337) asserts in this regard that originality in a PhD research project should include applying existing stances, methodologies, and theories to new data; finding new ways of analysing and theorising on the basis of existing data; proposing new methods and theories for old problems; and reinterpreting existing theories.

Lean.org (n.d) points out that graduating with a PhD may involve completing a wide range of classroom coursework, comprehensive exams and an original doctoral dissertation, especially in most North American and some universities in Europe. In most universities in eastern, western and southern Africa the PhD may be a blend of course work and dissertation, though the latter is the most common with the possibility of an oral presentation or defence (viva) by the candidate. The entry requirements for students intending to pursue a PhD in LIS in most eastern, western and southern African Universities is a Master's degree in the same or a related field. Learn.Org (n.d) points out that some academic programmes, especially in European and North-American universities are designed to move students directly from an undergraduate degree to a PhD.

A PhD project of which the final product is a dissertation or thesis may be written in two formats: first as a single, coherent book. Second, as a set of articles which are published, in press, submitted, or intended for submission in peer-reviewed, accredited journals (Aina 2015, 112). The focus of this article is on the shortcomings in LIS PhD theses or dissertations that have been completed as a single coherent book.

PROCEDURES AND METHODS FOLLOWED IN COMPILING THIS ARTICLE

The population on which this article is based consisted of 15 purposively selected universities in eastern, western and southern African regions covering five countries of Kenya, Uganda, Botswana, Ghana, and South Africa for the period 2008–2016. The universities were purposively selected because the author(s) either supervised or examined 36 PhD theses in these institutions during the period under review. The examined PhD theses covered diverse topics that included, but were not limited to information behaviour, artificial intelligence, library automation, technology acceptance and use, information management, knowledge management, information needs and information-seeking behaviour, small business enterprises, information literacy, digital libraries, institutional repositories, scholarly publishing, records management, ethics, collection development, e-learning, business intelligence, information needs of SMEs, electronic information resources, and LIS curriculum development. The analyses were based on written examination reports of the examined theses.

SHORTCOMINGS FOUND IN LIS PHD THESES IN REVIEWED UNIVERSITIES

There are variations in terms of the number of chapters in PhD theses or dissertations, especially from a disciplinary perspective and even in the LIS field, depending on individual institutional requirements. The number of chapters in a PhD thesis or dissertation in LIS may vary from 5–10 (Perry 1995). Phillips and Pugh (1987) justify a PhD structure of more than five chapters based on unusual characteristics of the analysis of individual research projects such as one consisting of two stages involving qualitative research followed by quantitative research.

The analyses of the shortcomings in LIS PhD theses or dissertations presented in this article are based on the unified structure of seven chapters, notwithstanding variations at the different universities in the way the chapters are labelled. The common labels of the chapters we came across included: introduction (background to the study); theory (conceptual and theoretical framework); literature review; methodology (methods); data analysis and presentation of findings; discussion of the findings; summary, conclusions and recommendations. The choice of the seven chapters unified structure of PhD theses or dissertations is informed by the fact that most examined theses seemed to adopt this format.

The presentation in the subsequent sections starts with shortcomings in selecting the PhD research topic followed by the shortcomings encountered under each of the seven chapters of the PhD project. Finally, the shortcomings in the technical presentation of the thesis or dissertation are also presented.

SHORTCOMINGS IN SELECTING RESEARCH TOPIC

The common shortcoming that we found in the selection of the research topic is that PhD candidates did not adequately demonstrate in-depth understanding of the extent to which related studies may have covered similar ground to that being proposed. In this regard, candidates do not seem to have an adequate grasp of the approaches, contexts, methods, and theories from the literature that would inform their own study. In addition, candidates sometimes do not take into account the feasibility or researchability of the topics in terms of scope (temporal and spatial), resources available (time, money and skills) and permission required from the gatekeepers or ethics committees to proceed to the field for data collection. For example, from the ethics perspectives, a research project on vulnerable groups such as children, the mentally ill, victims of rape and people living with disabilities is sensitive and ethics committees tend to be pedantic when reviewing such projects before granting the ethical certificate for the research to proceed. Furthermore, often the PhD candidates do not remember or are unable to relate the topic or the phenomenon being investigated to their own worldview (ontological, epistemological and methodological perspectives). They also tend to select topics with which they are not quite familiar and consequently find it difficult to research them

effectively. This often happens when they rely on a third party for research topics without considering their own passion, interest or competence to deal with such research topics. Blankenship (2010) therefore advises that the researcher must learn more about the phenomenon before making a decision to investigate it.

PhD candidates are advised to read widely on the relevant literature before choosing a topic for their research project in order to appreciate the current issues and debates in the field and thereafter situate their research within this discourse. Thereafter, the PhD candidates should provide a brief descriptive title that clearly identifies the context, the problem being investigated, and objects (animate or inanimate) of interest to the study. The research topic of the PhD candidate may also emerge from discussion with peers; themes of conferences in the field; areas identified for further research in completed theses; work experience and observations; ongoing and current academic debates; policy changes; and more.

SHORTCOMINGS IN PRESENTING THE INTRODUCTION

The introduction or background to the study is usually the first chapter in a PhD thesis. While most PhD theses make provision for different labels such as introduction, background to the study, context of the study or background to the problem; they sometimes do not articulate current debates in the field, the major question to be answered, hypotheses (especially in quantitative research) or assumptions, and their motivation for investigating the phenomenon. Moreover, some of the theses do not situate the research problem into the wider relevant literature and the current debates in the field.

While some theses present an equal number of research objectives and research questions in the introductory/background chapter, others provide fewer generic research objectives from which more research questions are drawn. This seems to be an area where there is no unanimity among scholars. According to the Copenhagen School of Global Heath (n.d.), the objectives serve to provide an accurate description of the specific actions the research will take in order to reach the aim of research. They are specific actions or activities to answer the research questions. The overall objective once stated, should be followed by specific objectives, which state exactly how the research problem will be addressed. Furthermore, each specific research objective should be phrased in a way that makes it possible to draw a conclusion from within the scope of the thesis. A research question according to Sequeira (2015) defines the area of interest, but is not a declarative statement like a hypothesis. The starting research question should be broad and complemented by specific or investigative questions to narrow the focus important for data measurement.

Kekale et al. (2009) point out that usually a major research question should be posed in the introductory/background chapter of the study of a PhD thesis stating the

research problem from which several specific questions regarding the instruments will later emerge. They add that evidence of the existence of the research problem should be adduced as well as the issues that will be addressed. Moreover, theory, literature and methodology should be introduced in the introductory/background chapter and later discussed substantively in subsequent chapters. The implications of the study from practical, policy, theoretical and methodological perspectives should also be presented.

In practice and beyond what the literature prescribes, an emerging trend advocates for 1–2 broad research objectives from which specific research questions (3–5) can be derived. In this regard, Thomas and Hodges (2010) suggest that in designing and planning a research project, at least two and up to three research objectives should be stated. They also state that in some situations, rather than stating research objectives, researchers will prefer to use research questions. This approach seems to concur with the school of thought that repeating the research objectives in the form of research questions or vice versa does not add any value to the thesis. Thomas and Hodges (2010) also note that research hypotheses can be used in designing and planning research as predictions of a relationship between two or more variables supported by statistical analysis. They observe that in general, hypotheses are used only in quantitative research, not qualitative research, and normally only when previous research, or a literature review, indicates a specific prediction is warranted. Some studies present hypotheses instead of research objectives, while others present a combination of research objectives and hypotheses. However, research questions are commonly used for open-ended qualitative studies. Ritchie and Lewis (2003) concur that in qualitative research, hypotheses are not tested but emerge from the research data and findings.

Therefore, the importance of presenting the introduction or background to the study in a PhD thesis cannot be over-emphasised. Quine and Howard (2010) assert that the introduction or background to the study chapter presents the subject of the thesis to the reader and discusses the reason, justification or significance of the work. Kekale et al. (2014), on the other hand, point out that the introduction or background to the study in a PhD thesis tells the readers what the student sets out to do and why and how he or she will be doing it. The chapter also adduces the originality of the study as well as its contribution to policy, practice, theory and methodology. It helps to provide a point of departure of the PhD research project from the existing body of knowledge.

SHORTCOMINGS IN SELECTING AND USING THEORY

Theory in research is used to provide variables that are to be investigated. The theory further provides a framework for literature review, analysis, presentation and interpretation of the findings (Mathipa and Gumbo 2015). Without the theory, it is akin to flying a plane that has lost the vital instruments to effectively navigate the flight safely and predictably.

The experiences of the authors in examining and supervising PhD theses in the Library and Information Science, or LIS field in eastern, western and southern African universities reveal various shortcomings in the choice and use of theory. The candidates tend to formulate research questions that do not clearly dovetail or are connected to the chosen theory and as a result find it difficult to relate the literature reviewed to the research phenomenon. A suitable theory should provide the framework for the formulation of research questions, literature review, data analysis and interpretation of findings. Poor choice of theory arises when the PhD candidates fail to review the relevant literature extensively to gain a better understanding of the kind of theories that have been used in similar studies. While in most cases the PhD candidates will present the theory that underpins their studies, they do not justify how such theory from among other probable theories is suitable for the research phenomenon being investigated. Understanding the broad range of potential theories other than the one underpinning the study is important for the PhD candidates to understand the research phenomenon from multiple perspectives.

While it is not uncommon to find PhD candidates applying multiple theories to investigate a research phenomenon, a single theory, if well-chosen, should suffice. However, the multiple theories may be applied in situations where the field of study is new and limited theoretical models exist, where the research phenomenon being investigated has multiple perspectives and are too complex for one single theory to suffice.

The authors found that in most PhD theses they examined, candidates seemed to rely on common or conventional theories in the discipline. Whereas this practice can be justified on the basis that such theories are widely tested and therefore robust it may suggest that little new knowledge may be generated using such conventional and widely used theories. Candidates pursuing PhD projects in the LIS field are encouraged to explore interdisciplinary theoretical frames especially when the research problem cuts across different disciplines.

SHORTCOMINGS IN REVIEWING LITERATURE

The literature review chapter in a PhD thesis summarises and evaluates a body of writings in relation to one's research study (Kaniki 2006, 19; Knopf 2006, 127). From the analyses of the examination reports of PhD theses in LIS that were submitted for the period 2008–2016 in eastern, western and southern African universities it was apparent that some PhD candidates did not provide upfront the framework of how the literature was organised in their theses. The lack of a clear framework of organising the literature leads to incoherence. The analyses of the reports revealed limited use of theory in presenting the findings. In some theses, the literature reviewed was less comprehensive in covering the international and local scopes. In such theses, it was rather problematic for the candidates to situate the research problem within the existing body of knowledge

in the field. In addition, some PhD theses did not reveal the gaps in literature and how the research problem they investigated could assist in addressing such gaps. The most commonly identified gap was that "no studies have been done in the context of the research problem". Such an argument could be flawed, especially when the candidates do not adduce evidence obtained from searching key databases in the field to show the status and growth of research in the discipline or in the area being investigated. PhD candidates should demonstrate depth of understanding of methodological, theoretical, practical, policy, legal or regulatory issues in their field of study and consequently identify the gaps in these areas. The identified gaps should then link up with research questions to show how such questions help address those gaps.

Assuming limited or no studies have been undertaken in the area being investigated, this does not justify a PhD project. Similarly, even if a study exists or has been undertaken regarding a particular research problem, it does not preclude a similar study being repeated as long as there are justifiable reasons for doing so. Such justifiable reasons may include wanting to validate the findings of a previous study, especially if the existing study was undertaken in a different environment or context, or if new approaches (ontological, epistemological, and methodological) have emerged with the passage of time. Without identifying the gaps in literature, the contribution of the PhD project to the body of knowledge in the field will be limited. Similarly, the originality of the study, which is a key consideration in PhD projects, can hardly be demonstrated if the candidates do not isolate a niche area within the field for the project.

In justifying an investigation into a particular research problem for a PhD project one or more of the following reasons may be adduced: the study will be valuable in addressing a particular and clearly identifiable societal problem, such as improving aspects of existing policy or formulation of a new policy; improving delivery of services; extending or improving existing theory or method.

Finally, in reviewing literature, the PhD candidates will inevitably encounter different and diverse views and findings on the phenomenon being investigated from empirical research in literature. The PhD candidates must therefore strive to consolidate and reconcile the diverse findings of related studies using the relevant theory, situate their stance and add their voice to the debates in the field.

SHORTCOMINGS IN PRESENTING METHODOLOGY

The methodology section in a PhD thesis should present the ontological (positivism, interpretive, or pragmatic/post-positivist paradigms) and epistemological (qualitative, quantitative, mixed methods) perspectives of the study clearly, as well as any hypotheses or underlying assumptions (Dwivedi, Ravishankar, and Simintiras 2015). The methodology should also provide a discussion of the research designs, population of the study, sampling procedure, data collection methods, data analysis, validity and reliability, presentation of findings and ethical issues.

The experiences of the authors in the supervision and examination of PhD theses at eastern, western and southern African universities reveal a general lack of understanding by some candidates of the relationships between the different parts of the methodology such as ontology, epistemology, research design, data collection methods and axiology. Ontology refers to a theory of the nature of social entities (Bryman et al. 2014). Epistemology, on the other hand, is concerned with the question of what is regarded as acceptable knowledge in a discipline. A central question is whether the social world can and should be studied according to the same principles, procedures and ethos as the natural sciences (Bryman et al. 2014). Finally, axiology is the study of values and how those values come about in a society. In general, an axiological perspective seeks to facilitate the understanding of the nature of values and value judgments.

The analyses of the PhD reports revealed a tendency of PhD candidates to present the epistemological aspect of the study (such as "this study will use qualitative, quantitative and mixed-method approaches") but they do not reflect a discussion of the ontological perspectives (such as positivist, interpretive and pragmatic paradigms that inform the research project). This could be attributed in part to the inadequate understanding of the concepts of ontology, epistemology, and axiology and how these can be applied in research.

Where it was found that PhD candidates had provided effective ontological explanations of their studies, they had failed to align the study appropriately with the epistemological perspectives. For example, quantitative epistemology aligns with survey or experimental research designs on the one hand and the questionnaires as data collection method on the other. Similarly, the interpretive ontology espouses a qualitative epistemology and uses designs such as case study, grounded theory, ethnography, content analysis, and archival research among others, and data collection methods such as focus group discussions, interviews, and participant observation. Furthermore, a pragmatic ontology uses mixed method epistemology with a combination of more than one research design including but not limited to case study, survey, observation, and content analysis.

The analyses also revealed qualitative epistemologies dominating the PhD theses with candidates relying more on case studies at the expense of ethnography (understanding cultures through participatory observation), phenomenology (understanding lived experiences of respondents), grounded theory (starting with no theory with the intent to generate a theory based on findings obtained), action research (understanding the practices of organisations with a view to coming up with a plan to improve performance), archival research (mining and using archival data to understand the phenomenon being studied, and experimental design (using experiment to investigate a phenomenon). Most of the PhD projects seemed less inclined towards using advanced statistics to analyse and present the findings. This finding could be an indictment on both the supervisors and PhD candidates for the lack of statistical skills in analysing and presenting findings using such measurements as mean, mode, standard deviation, t-tests, and regression

analyses among others. University World News (2008) pointed out that South African universities were haemorrhaging lecturers and were battling to attract critical and scarce skills such as statistics, engineering and health sciences.

The other most common inadequacy we came across in the PhD theses we supervised or examined was shortcomings by candidates to present a clear strategy for recruiting the respondents. While most PhD theses clearly outlined how the sample size was selected they did not show or explain how the respondents were reached. They also concentrated more on non-probabilistic methods of sampling such as census, purposive, convenience, and snowballing at the expense of probabilistic sampling techniques. There were also shortcomings identified in the pre testing of data collection tools. While they pretested their instruments, they did not explain how the data from the pre tests were analysed and used to establish, for example, validity and reliability of the instruments. They also failed to integrate the results from the pre test into the main study. Thabane et al. (2010) assert that data from a pilot or pre test should be combined with data from the main study provided the sampling frame and methodologies are the same. They add that integrating the pre-test results into the main study can increase the efficiency of the main study.

In most theses, the PhD candidates indicated that the tools they had used to collect data were adapted or adopted from related studies. However, they did not explain how the studies from which the tools were either adapted or adopted were relevant or related to their study. They did not, as expected, show the level of reliability and validity of the tools they adopted or adapted, either. In a few cases where candidates attempted to generate Cronbach Alpha Coefficient or Factor analysis to help determine reliability and validity respectively, they did not explain whether the values were average across all items (questions) in the data collection tools or only applied to certain items in the tools. These shortcomings could be attributed to lack of clear understanding of the meaning of terms such as reliability, validity, “adopt”, “adapt”, Cronbach Alpha, and Factor analysis, and how these should be used.

SHORTCOMINGS IN PRESENTING THE FINDINGS

The findings chapter in a PhD thesis sets out key investigational outcomes, including any statistical analysis and whether or not the outcomes are significant. This chapter usually covers the findings from analyses of data gathered from the field to address the research problem. PhD candidates tended to calculate response rate based on population size (N) rather than sample size (n). In addition, most PhD theses did not provide biographical information of the research participants and some failed to account for all the questions in the data collection tools.

The shortcomings were diverse and varied. They included that the candidates did not articulate their framework for presenting the content of the chapter adequately, providing a strategy for data analysis and presentation of findings upfront; integrating

and triangulating data collected through various techniques; applying theory to the analysis of data or linking methods, findings and recommendations. The framework for organising the findings is often the research objectives, research questions or hypotheses. Such findings will usually be presented using a combination of graphical outputs such as frequency tables, pie charts, and histograms on the one hand, and/or statistical measurements such as chi-square, cross tabulations, regression analyses, t-tests. on the other. In contrast, the findings in qualitative research are commonly presented using thematic categorisation and narration. It is, however, important to point out that depending on how qualitative data are coded and analysed they can also be presented using graphical output and statistical measurements, especially if such data are quantitative. PhD candidates are advised to plan in advance and prior to their fieldwork, the kind of data that they wish to collect, how such data will be analysed and presented.

In analysing data, the candidates should strive to integrate the various data that have been collected using different techniques as long as such data speak to the same theme of the phenomenon being investigated. By integrating data from different tools, the findings of the analyses can be presented in a more logical and coherent manner. This can also help reduce the number of cross references made within the thesis to enhance readability. Moreover, in presenting findings from interviews or focus groups the voices of the respondents should be heard through verbatim representation of their statements.

While the decision to collect biographical data (such as gender, age, education level, race, employment status, socio-economic status, ethnic group, affiliation and others) of respondents will depend on the nature of the study and whether respondents are animate or inanimate, and the extent to which these variables influence the findings; variables such as gender, education level, and age tend to affect the findings in most studies that involve animate respondents. A gender perspective can, for example, help to reveal the extent of bias in the selection of the respondents in a study.

SHORTCOMINGS IN DISCUSSING THE FINDINGS

The purpose of the discussion of the findings chapter in a PhD thesis is to interpret and explain the meaning of the results, answer the research questions, justify the approach and critically evaluate the findings (Dwivedi, Ravishankar, and Simintiras 2015). Like the findings chapter, the discussion of findings as pointed out earlier should ideally be organised around the research objectives, research questions or hypotheses where applicable as the framework. For example, the use of the research questions to organise the discussion is twofold: to account for all research questions and illuminate the extent or otherwise to which the research problem has been addressed and to give logical structure to the chapter.

The shortcomings identified in the theses after examination and supervision were as follows: the lack of a framework of how the discussion of findings is organised; critical

engagement of the findings using the literature or theory; a statement on the originality of the project and the gaps that the study addressed in the current body of literature; and a statement on the contribution of the findings concerning policy improvement, existing theories or new theories and methodologies. In addition, the reviewed PhD theses tended to repeat the content of data analysis in the discussion. Only key aspects of the findings had to be highlighted, followed by an explanation of what they mean using the extant literature and theory. Cross-referencing within the thesis can help reduce unnecessary repetitions.

Though not cast in stone, the chapter where findings are discussed, should commence by restating the initial purpose of the study (or restating the objectives and research questions) in order to enable recollection of the reader to the phenomenon being investigated. Restating the purpose of the study can also help demonstrate how and the extent to which objectives of the research project have been achieved.

The findings from analyses of the PhD theses have revealed that while attempts were made by the candidates to explain the findings, often there was a tendency to cite or reference literature or aspects of theory that seemed to support the candidates' findings. Both literature and aspects of the theory that seem to agree with and contradict the findings need to be equally engaged with and the possible reasons for concurrence or divergence explained. The difference or concurrence of findings with extant literature and theory may arise due to similarity or differences in context, population, ontological or epistemological factors, the scope of the study, timing of the study, and more. Reliance on literature that supports the findings at the expense of that which does not, may incorrectly suggest no new contribution is made by the PhD project to the existing body of knowledge in the field.

The discussion should end with a summary of key aspects of the findings and how they relate to all the research questions that were investigated and how they conform or otherwise to the theory as well as the broader body of literature in the relevant field.

SHORTCOMINGS IN SUMMARY, CONCLUSION AND RECOMMENDATIONS

From the analyses of the PhD theses that were reviewed, shortcomings that commonly appeared in the final chapter of the PhD project included candidates who had not managed to do the following: link the summary of key issues that emerged in the study to the research questions; provide a conclusion that accounted for all the research questions; present recommendations that emanated from any best practices elsewhere; provide recommendations that were clearly feasible with action plans and responsibilities.

The summary, conclusion and recommendation of the PhD thesis should reflect three main components – summary, conclusion and recommendations. The summary should outline key issues that have emerged from the findings. The summary should

also indicate the originality of the study, the contribution and implications of the study for policy, practice, theory and methodology.

Bryman et al. (2014) point out that important arguments should be provided in the opening paragraph of the conclusion and bring home to the readers the significance of what the research had achieved. The conclusion must also consolidate the findings and show the extent to which each research question has been answered and any constraints that could have affected the findings in any way. The conclusion should be presented in such a way that the purpose for which the study was undertaken should be apparent.

The recommendations section of the PhD thesis on the other hand should present the remedial actions that are needed to rectify the anomaly that was investigated. Each recommendation should indicate the agent responsible for the remedial action. In addition, the resource implications, timelines and any constraints in implementing the recommendation must be anticipated and documented. Where similar recommendations have been made or implemented elsewhere, these should be referenced. These recommendations should be tied to the conclusion. The future research direction should also be provided as part of the recommendation.

SHORTCOMINGS IN TECHNICAL PRESENTATION OF THESIS

The technical shortcomings noted in the PhD theses that were examined or supervised were varied. For example, the use of different referencing and citation styles in the same thesis; varying publication dates for the same source in-text and in the list of references; inappropriate use of et al. (for example, the first author's surname et al. (date)); and presenting the universal resource locators (URLs) in-text as authorship. However, there are instances when URLs can be reflected in the text to point to a source rather than as a citation of the source. For example, formulation such as the website http://www.ukzn.ac.za was deactivated is correct, but the formulation such as according to http://www.ukzn.ac.za (used in the place of authorship) is incorrect.

The other area of concern is the inconsistent application of upper and lower case, and the inappropriate use of italics in presenting journal articles and book titles. It was also common to find PhD candidates presenting incomplete references where one or more of the bibliographic data were missing. Similarly, there were common cases of cited references not being in the list of references and vice versa.

Ram and Anbu (2014) assert that it is evident from citation studies that authors give very little attention to the referencing and citations. The technical presentation of a PhD project is critical and must be taken seriously by the candidates because it contributes significantly to the quality of such project. The PhD thesis must be satisfactory in literary style and presentation. Buttery and Richter (2005) state that a PhD thesis should be clear, accurate, logical, persuasive and suitably documented. In addition, referencing and citation, language and grammar, formatting, use of fonts and coherent presentation

are part of important aspects of the technical presentation in a PhD thesis. Bryman et al. (2014) emphasise the importance of acknowledging the work of others, which a researcher used to write the research project. PhD theses must therefore be thoroughly edited for language, grammar and consistent formatting as well as referencing before they are submitted for examination.

CONCLUSION

This article presented the shortcomings in the LIS PhD projects submitted for examination or supervised in purposively selected universities in Kenya, Uganda, Botswana, Ghana, and South Africa during the period 2008–2016. The article was based on the experiences of the authors as examiners and supervisors. The shortcomings were identified by analysing the PhD projects examination reports. The shortcomings were revealed in the conception of the research topic, background to the study, review of literature, selection and use of theory, presentation and discussion of the findings as well as in the technical presentation of the theses. The findings revealed several shortcomings in the quality of some LIS PhD projects in the universities examined.

The authors conclude that the shortcomings in identified LIS PhD projects may be attributed to a number of factors such as inadequate preparedness and the limited skills and competencies of supervisors and the candidates, the limited support given to PhD candidates, and limited course work in the PhD programmes offered.

The authors recommend the change of the PhD mode of offering from being wholly research-oriented to a hybrid model of course work and research. The issues raised in this article have implications for capacity building for PhD supervision, postgraduate support and mentorship in eastern, west and southern African universities.

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