

An Evaluation of the Challenges of Sudanese Linguistics and English Language-Related Studies' Ph.D. Candidates: An Exploratory Qualitative Study

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Abstract This qualitative evaluative study is based on semi-structured interviews with two Sudanese professor supervisors and three Ph.D. candidates who have recently completed their Ph.D. study in linguistics and English language-related studies at the Graduate College, University of Khartoum, Sudan. The study explored and evaluated the problems and challenges Ph.D. candidates encountered during their candidature from the perspectives of both supervisors and candidates themselves: How do these challenges impact on their study? How do they cope with these challenges? How can these challenges be overcome? The study provided new insights into doctoral education in Sudan, specifically in the University of Khartoum. The study adopted a qualitative methodology with semi-structured face-to-face interviews being the principal method of data collection along with the collection of some institutional documents, some of which are being used during interviews in a discourse-based format. Five tape-recorded interviews were conducted with both candidates and supervisors. Interview data were coded and analyzed inductively. Results of data analysis revealed that there were many problems and challenges doctoral students experienced throughout their Ph.D. candidature, such as supervision-related challenges, resources-related and organizational challenges. In addition, there were a number of strategies candidates reportedly used to deal with these challenges and both candidates and supervisors reportedly held varied perceptions about what makes a good quality Ph.D.. The study recommendations, implications along with its limitations and suggestions for further research were presented and discussed.

Keywords Linguistics · English Language-related studies · Ph.D. candidates · Problems · Challenges · Qualitative · Evaluative

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1 Introduction

Doctoral education is the highest level of academic qualification someone can attain in higher education and it is the core and fundamental degree of academic practice (Pyhältö, Toom, Stubb, & Lonka, 2012). Engaging in postgraduate research not only entails undertaking the research but also developing research skills in order to become an independent researcher (Brydon & Fleming, 2011, p. 996). The fundamental goal of Ph.D. research in higher education degree programs is to produce independent researchers who are able to adapt to diverse contexts in both the academia and industry (Manathunga & Lant, 2006). Ph.D.s, unlike other less challenging postgraduate degrees in academia, require high quality standards and benchmarking.

A successful Ph.D. candidate should be in full command of the subject area of their research and its current trends of knowledge and debate and they should also be able to extend the debate and contribute to the existing knowledge. They should show originality in their produced Ph.D. thesis. Given such a high status of doctoral degree in academia, the produced Ph.D. thesis should therefore be of a high quality and should meet the required standards and benchmarking. Sudanese linguistics and English-language related studies, Ph.D. candidates, however, seem to have experienced a range of challenges that hinder them from meeting the required high standards and benchmarking often expected to be met in the produced Ph.D. theses.

Previous studies (e.g., Ayiro & Sang, 2011; Dysthe, Samara, & Westrheim, 2006; Edwards, 2002; Hasrati, 2005; Mackinnon, 2004 cited in Gunnarsson, Jonasson, & Billhult, 2013; Löfström & Pyhältö, 2014; Winter, Griffiths, & Green, 2000) have highlighted a range of challenges and problems Ph.D. candidates encounter with their Ph.D. study. The most frequent challenges range from supervision, assessment of high quality Ph.D. these, lack of resources, lack of focus, poor research design to inadequate conceptualization of research questions, inadequate research background, lack of training in methodological and writing skills, and lack of research facilities. The present study attempts to explore these challenges and problems Sudanese Ph.D. candidates encounter during their Ph.D. candidature. The overarching objective of the study is to provide some pedagogical implications to inform the doctoral education research training and development programmes in the Sudanese higher education institutions. The study adopted a qualitative methodology whereby semi-structured intervening was used as the main method for data collection along with the collection of some institutional documents to enhance the study both methodological and analytical triangulation. The study is part of a large project with multiple phases of investigation covering a number of Sudanese universities but the current study reported in this chapter is the first phase and was only confined to the University of Khartoum The implications for the development and sustainment of Ph.D. research training programs will be discussed and recommendations for the development of criteria for high quality Ph.D. theses will be presented.

2 Theoretical Background

In the last decade of the twentieth century, there was a major influx and expansion of doctoral studies undertaken at the higher education institutions in the UK, USA and other countries (Morley, Leonard, & David, 2003). Doctoral education is the highest education level of academic qualification and the foundation for research and development. The key part of undertaking a Ph.D. is to become an independent researcher. Engaging in postgraduate research does not only entail undertaking the research but also developing research skills in order to become a researcher (Brydon & Fleming, 2011, p. 996). The fundamental goal of research in higher education degree programs, particularly doctoral degrees, is to develop independent researchers who are able to adapt to diverse workplace contexts in academe, industry and the profession (Manathunga & Lant, 2006).

PhDs, unlike other less challenging postgraduate degrees in academia, requires high quality standards and benchmarking. A successful Ph.D. candidate should be in full command of the subject area of their research and its current trends of knowledge and debates and they should also be able to extend the debates and contribute to the existing knowledge. However, the Ph.D. degree candidates in Sudanese higher education institutions seem to have fallen short of these standards and requirements. They seem to have experienced a range of challenges and difficulties during the course of their Ph.D. candidature that hinder them from attaining the required standards. Firstly, supervision-related challenges such as lack of expertise and experience on the part of supervisors. Secondly, resources-related challenges which include a lack of sufficient resources and research facilities. Thirdly, there are also some significant other challenges such as the lack of funding, lack of research training and development programs on both the methodology and academic writing levels, candidates' inadequate research background knowledge, and the uncontrolled growth of the number of Sudanese postgraduate students wishing to pursue Ph.D. study, etc.

Producing a high quality Ph.D. thesis is the core element in doctoral education. However, there seems to be a practical problem facing Ph.D. candidates and supervisors in higher education institutions as to how to produce and judge Ph.D. research quality (Winter, Griffiths, & Green, 2000). Quality research can be defined operationally as the research that is completed on time and have a rigorous research design which is internally and externally valid, based on a reliable data sources, using appropriate analytical methods which are meaningful (Mahmood, 2011). The issue of monitoring and benchmarking the quality of Ph.D. theses has been studied widely and it needs to be addressed (Kyvik & Thune, 2014). Measuring the quality of scientific output is traditionally done by using peer review and scientific methods. Judging the quality of a Ph.D. thesis and finding the appropriate and explicit criteria for assessment is not an easy task. For example, Gulbrandsen (2000) argued that the concept of research quality should be divided into quality elements which demonstrate different criteria of good research and which could be extended to cover Ph.D. theses and other pieces of research. In the same line Marsh, Rowe, and

Martin (2002) noted that establishing appropriate benchmarking criteria or framework for measuring the Ph.D. effectiveness is not an easy task. However, there are several main indicators which can be used to measure Ph.D. effectiveness and quality. The criteria should include the following: Originality, solidity, scholarly/scientific relevance and practical/societal utility. From a research quality perspective, originality is a common concept which implies novelty in relation to current existing knowledge and theory.

Original research contributes to new perspectives, data or methods. However, what exactly constitutes originality in doctoral theses is open to different interpretation. Additionally, the solidity element includes the idea of stringency, validity, reliability, correctness, truthfulness and consistency. This element is closely related to the mastery of a body of scientific knowledge and appropriate methodologies. In doctoral theses, elements such as the structure of the arguments and the manner of the thesis presentation are also seen as important quality criteria when assessing theses (e.g., Mullins & Kiley, 2002, cited in Kyvik & Thune, 2014). Moreover, scholarly relevance comes as part of research quality. This may include that the research problem, theory, methodology or results must be interesting to other researchers in the same or similar fields. Practical utility is a fourth element of research quality which deals with the external or extra-scientific relevance. This means the research should be of interest, importance or utility not only to the scientific community, but also to specific users or society in general. All these elements are mutually important for measuring research quality.

3 Ph.D. Supervision

Ph.D. education is the core and fundamental degree of academic practice (Pyhältö et al., 2012). Supervision is a key element for the successful of Ph.D. journey. It is, however, a pedagogical challenge in higher education (Gunnarsson et al., 2013). The success of the Ph.D. degree depends on supervisors. They must provide expertise, time, and support to foster in the candidate the skills of and attitudes towards research, and to ensure the production of a thesis is of an acceptable standard (Heath, 2002). It is widely believed that supervision should be approached from pedagogical perspectives (Zeegers & Barron, 2012). Ph.D. supervision has two major dimensions: The involvement of the supervisors in the provision of intellectual expertise to students, and their involvement in counselling students and boosting their confidence and morale (Hockey, 1994). Moreover, doctoral supervision provides a potential arena for learning to identify problems that arise during the study and solve them in an ethically and sustainable manner (Löfström & Pyhältö, 2014). Supervision has been identified as one of the most important determinants of doctoral studies and good doctoral supervision is viewed as central to the achievement of positive outcomes from research education (Halse & Malfory, 2010).

Lee (2008) offers five dimensions for the role of supervisors in dissertation writing: Identifying functional aspects (project management), enculturation

(encouraging the student to become a member of the academic community), critical thinking (encouraging the students to question and analyze their work), emancipation (getting the students to question and develop themselves) and developing a quality-relationship whereby the student is inspired, nurtured and cared for. The features or elements constitute a part of an apprenticeship model for supervision. The supervisors' role is to bring down the students from their professional pedestal, as a process of status 'deconstruction', so that they can progress as researchers (Watts, 2009).

However, there are some supervision-related problems which can hinder the Ph.D. progress and completion. Problems, such as lack of supervision, overdependence on supervisors, and being at cross-purposes with supervisors are reported in the literature as the main causes to problems such as prolongation of studies, lower level of well-being and dropping out (e.g., Dysthe, Samara, & Westrheim, 2006; Edwards, 2002; Hasrati, 2005; Mackinnon, 2004 cited in Löfström & Pyhältö, 2014). Other problems which have been reported are supervisory relationships, including lack of supervision or interpersonal friction.

Further Gunnarsson et al. (2013) have reported some supervision-related problems such as an inadequately low supervisory meeting frequency resulting in a stressful and lonely walk Ph.D. education journey. Many academics have reportedly said that study for a Ph.D. and supervising it is a really complex task (Denicolo, 2003). The most fundamental problem which is repeatedly discussed in the literature and which is encountered by supervisors is the lack of motivation among some of their Ph.D. students (Hockey, 1996). Additionally, previous studies on doctoral students' experience and difficulties report that attrition rate, distress and disengagement are the most encountered challenges (Mahmood, 2011; Pyhältö et al., 2012). Moreover, Ayiro and Sang (2011) conducted a qualitative study based on 52 Ph.D. candidates and 60 academics in Kenyan public universities to explore the challenges that Kenyan Ph.D. candidates experienced during the course of their studies and the sources of these challenges and difficulties. The study was primarily aimed to enhance *quality assurance processes* in the award of PhDs by Kenyan universities. Some of the major sources of the problems reported by participants are: Lack of focus, poor research design, inadequate conceptualization of research questions, inadequate research background, lack of training in methodological and writing skills, and lack of research facilities. In the same line, McCarthy, Hegarty, Savage, and Fitzpatrick (2010) noted that Ph.D. candidates may experience challenges in establishing their conceptual frameworks, methodological issues, ethical dilemmas and even accessing their study participants.

4 Context of the Study

The study was conducted in Sudan. The Republic of the Sudan (henceforth Sudan) is an African sub-Saharan country situated in the North-east of Africa and bordered by seven countries. Standard Arabic is the official language of the country while

English is the second official language. Besides these two languages, there are numerous indigenous languages spoken in Sudan. English is a foreign language in Sudan, but it is used as a second official language after Arabic in the official transactions of the governmental institutions. It is also taught as a subject in schools and universities and it is used in some Sudanese higher education institutions as the medium of instruction and assessment in certain disciplines.

English was used as the medium of instruction in higher education institutions until 1990 when new policies of Arabisation¹ were introduced whereby English was replaced by Arabic as a medium of instruction in higher education. These policies stipulated that the higher education curricula must be taught and/or translated into Arabic and Arabic must be used as a medium of instruction and assessment instead of English in all undergraduate and postgraduate programs in the higher education institutions. Despite this English has remained the medium of instruction and assessment in a number of postgraduate programs in these institutions. Due to its status and historical international links with English speaking universities, especially in Britain, the University of Khartoum in particular has retained the use of English as the medium of instruction and assessment in a number of postgraduate programs run in different faculties and institutes of the university.

Comments: I guess all the previous paragraphs under the heading of “context of the study” should be compacted into two short paragraphs. I guess no need for all these sub-titles.

The graduate school at the University of Khartoum was established in 1973. Since its inception, it has been offering Ph.D. degree programmes in Linguistics and English-language related studies in three departments housed in two faculties at the University of Khartoum. Since 1978 to 1993, seventy-five Ph.D. candidates have completed their Ph.D. study at these three departments. The theses are divided into three broad areas namely, linguistics, English Language and educational studies. There are about 15 theses in linguistics, 12 in education and 48 in English language. The first Ph.D. thesis in English was completed in 1978. From 1993 to present there seems to have been an upsurge in the number of Ph.D. candidates as there are seventy-four Ph.D. theses that have been completed since then.

5 Significance of the Study

This study investigated the challenges and needs of the Sudanese Ph.D. candidates doing research in linguistics and English Language-related areas of study in the Sudanese higher education institutions. It is a large project with multiple phases of investigation covering a number of Sudanese universities but the current study

¹Arabisation is the use of Arabic as a sole medium of instruction in the higher education institutions. The policies were introduced in the 1970s but practically came into effect in the 1990s.

reported in this chapter is the first phase and will only be confined to the University of Khartoum. The implications of the findings of the study are intended to better inform the Ph.D. supervision and research training and development programs to maintain high quality of Ph.D. theses that meet the international quality assurance and benchmarks. The implications have an ecological significance for the doctoral education in the context of the study as, to the best of our knowledge, there has not been any study so far conducted on this topic in the context. The study is, therefore, pioneering and would open up potential avenues for more future search in the Sudanese context and across the region.

6 Methodology

In this section we explain the research design of the study and the qualitative methodological approach adopted and justify this methodological choice. We also explain the process used for the recruitment of the study participants both supervisors and candidates. The section will also include the description and discussion of the methods used for the data collection. We will conclude the section by discussing the process applied to the data transcription, coding and analysis procedures including inter-rater reliability checks. Five participants (two supervisors and three candidates) took part in the study. Supervisors had at least ten years of experience in supervising Ph.D. degree and candidates have recently completed their Ph.D. theses (less than two years).

The project was explained in writing to the participants and they were informed that their participation was voluntary, and they were freely able to withdraw from the study at any time. A written informant consent form was obtained from all participants. As a characteristic of being exploratory, the study used semi-structured interviews as a principal method of data collection along with some documentary data to enhance triangulation. To gain the insider participants' *emic* perspectives and thereby lessen the outsider researcher's *etic*/outsider perspectives on the issues under investigation, the study adopted a face-to-face interview method, which would help the researcher gain the participants' "views, understandings, interpretations [as well as] experiences" (Mason, 2002, p. 63). Qualitative interviews can be semi-structured or open depending on the purpose of the research (Dörnyei, 2007; Kvale, 1996), and the present study adopted the semi structured interview format since the purpose was to explore and discover as many issues as possible from both supervisors and candidates regarding the issues under investigation in the context of the study. Besides the use of interviews, the study also used some documents to enrich data collection. A range of documents were collected and analyzed. The documents helped triangulate the data as they were used in the interviews in a discourse-based format with the study participants (for further discussion of discourse-based interviewing, see e.g., Lillis, 2001; Odell, Goswami, & Herrington, 1983). The documents included the graduate school higher degree

handbook and regulations, rules, policies and some statistics on the number of Ph.D. degrees awarded from 1970s to date.

6.1 *Coding of Interview Data Transcripts*

We adopted an exploratory open strategy to code our data in the sense that we coded everything so that we could discover as many potential issues as possible from the data. We began by reading the interview transcripts, summarizing them, or ‘discover[ing] particular events, key words, processes, or characters that capture the essence of the piece’ (Coffey & Atkinson, 1996, p. 31). We had two sets of interview transcripts: Two supervisor participants’ transcripts and three candidate participants’ transcripts. We transcribed all interview recordings verbatim. Having finished transcription, we chose two representative interview transcripts, one from each set of data, and we read through and summarized the topics addressed by the informants while making crude codes. This summary was done manually in the margins of the text using Microsoft Word’s *add new comment* function. For example, the following summary code was initially made for the chunk of text below from one of the supervisors’ representative interview transcripts: *Supervisors’ views on the types of challenges and problems*

They are not themselves trained to research. They never wrote in their undergraduate studies. They never wrote long essays or short essays in the term, in the time of four years’ time they, they, they study. So when they come to write research they don’t know how to do it. People don’t know how to compile or how to develop a paragraph. They don’t know how to develop a paragraph. They know nothing about the simple idea of opening and ending that paragraph (...) (S1).

We then read again through the remaining interview transcripts of both supervisor and candidate participants and applied these summary codes. After adding the summary codes to the remaining interview transcripts, we went back and read again carefully and closely through the two representative interview transcripts for both supervisor and candidate participants and using Microsoft Word’s *add new comment* function once again, we added besides the summary/crude codes new refined codes in order to make the codes/themes more representative and more accurate. So, for instance, to the same above chunk of text, we added the following refined code: *Challenges and problems*. Such new codes were again applied to the remaining supervisor and candidate participants’ interview transcripts. *The challenges and problems* code then became the main code for all types of challenges and problems including a number of sub-codes representing the range of the types of these challenges and problems which were adequately covered in the analysis section.

As we were planning to conduct inter-reliability checks with a second coder, we again refined and rewrote our codes to be more transparent and more reader friendly, and added shorthand codes for convenience. Instead of asking, for

instance, the second rater to assign a code of challenges and problems to the bits of text in the transcripts when supervisors talk about the challenges and problems of candidates, this became a simple shorthand and user-friendly code, *CHALLPROB*, with the code definition clearly provided.

Having finalized the two lists of codes for both supervisor and candidate participants, we then sent two typical and representative interview transcripts along with the two lists of codes to a second coder and asked them to try the codes on these two transcripts. The second coder was a Ph.D. student of applied linguistics who was familiar with qualitative research as they themselves were using qualitative research methodology for their study. After the second coder/rater had finished coding, we met with them to calculate the percentage of inter-rater reliability and secondly to discuss and resolve our coding disagreements.

Simple percentages of agreement and disagreement were calculated by dividing the number of coding agreements over the total number of coding episodes multiplied by hundred (number of agreements/total number of coding episodes x 100). The disagreements were counted and documented so that we would later discuss and resolve them. The percentage of our agreement on the teacher supervisor' interview transcript was 90 % and on candidates participants' interview transcript 88 %.

While some researchers (e.g., Coffey & Atkinson, 1996) in the literature of qualitative research warned against using coding as synonymous with analysis other researchers (e.g., Miles & Huberman, 1994) have considered the coding of qualitative data to be analysis. In this study we differentiated between the two processes. We first coded our data into categories and themes and we then moved on to further analysing these themes by establishing more linkages and connections between them by comparing and contrasting participants' views on the issues under investigation. To put it simply, coding brings interview data on an idea or theme together; analysis 'lies in establishing and thinking about such linkages (...) how we use the coding and concepts' (Coffey & Atkinson, 1996, p. 27).

Having explained the coding and the analytical procedures in the previous section whereby the final themes and categories in the data were identified for further analysis, in this section we will interpret and explain the data by establishing comparisons, contrasts, and linkages with reference to our research questions. The analysis will be presented thematically according to the study reach questions. Data transformation is done manually and undertaken through the identification of emerging themes and codes. Thematic analysis is employed because it has the potential to produce diverse interpretations of the data and offers more insightful interpretations to the data in question (Braun & Clarke, 2006).

7 Results

This section will only be devoted to the data analysis and a separate section will follow where the results will be discussed and connected with the relevant literature.

RQ1. What are the challenges Sudanese Linguistics and English-related studies Ph.D. candidates encounter throughout their Ph.D. candidature and how do these challenges affect the quality of the produced Ph.D. thesis?

Both supervisors and candidates reported a range of challenges and difficulties that Ph.D. candidates experienced with their Ph.D. study. The section below summarises these challenges, their sources, their negative impact on the candidates' performance to produce good quality Ph.D. thesis, and the coping strategies students used to try and overcome these problems. The main challenges which were reported are: Supervision-related challenges, resources-related challenges and organizational-related challenges. The results suggest that there was a variety of challenges that were encountered by Ph.D. students during their candidature. The candidates highlighted a number of problems throughout their candidature which would affect the quality of their produced theses. *Supervision problems were most frequently mentioned including the lack of guidance:*

We don't have guidance. You keep reading and reading a lot [in the literature]. There is no guidance, there is no one to ask, there is no one to refer to, just trying to find your own way, this is my biggest problem from the beginning (C1).

This candidate carried on to report problems with academic writing Ph.D. candidates encountered and that the Ph.D. study did not train them to be good writers to develop beyond the Ph.D. study due to lack of feedback on writing:

(...) even people, when after finishing their thesis, they *haven't mastered techniques* of dissertation writing (...) Why? Because we don't have plans. We don't have someone to say, this is wrong. This is right. This is supposed to be done like that because of that and so on (...) You have to go and read and find your own way (...) You can find it hard to be (...) but at last you (...) the [lack of training on] techniques [of academic writing] is our problem (C1).

Candidate's (C1) comment shows that lack of guidance and lack of planning are some of the challenges that they personally encountered during their Ph.D. study and it is clear that C1 struggled with their Ph.D. and this would clearly have a negative impact on their study. It can be seen from the above quotations that the lack of guidance and planning was a major challenge for them along with the lack of academic writing skills and techniques which were needed not only for successful Ph.D. writing up but also for carrying on and developing as a publishing researcher beyond the Ph.D..

Similarly, candidate (C2) reported problems regarding lack of subject specialist supervision and thus lack of guidance:

[My supervisor told me], I personally cannot help you. I just help you in the *technical way* of doing the research but you will be *responsible for everything* regarding the topic of your Ph.D.. I seek no help from anyone but I had to dig for my own [way]. That's one. And, the second challenge was how to find the sources for writing (C2).

Moreover, this candidate went on and reported that even the external examiner of their thesis did not have the relevant expertise on the subject area of their Ph.D. area of research: *My external examiner just dealt with it [my Ph.D. thesis] as research so that is just like my,*

my supervisor. *They look at the structure of research and whether I followed the methodology of research or not that is because they don't have idea about the content (C2).*

Furthermore, in the same line, candidate C2 reported supervisor's lack of expertise in the research area of their Ph.D. to the extent that supervisor suggested change of the first chosen topic:

The first challenge was when I wrote this [my research proposal], the supervisor said, "*This is a good field and you might be the pioneer in this field and you will never find anybody here who will help you in this field because as far as I know no one has supervised this area before.*" So, this is an altogether new area. But when I came after a year the supervisor changed their mind and said that, "*No, I don't want you to (...)*" they said they didn't want me to write on this field and have to choose any other field (C2).

So apparently, this lack of expertise and thus instability in supervision would have negative impact on the candidates' motivation and focus which would in turn result in poor quality produced Ph.D. theses.

Similarly, C1 reported that this lack of expertise and subject specialism on the part of supervisors resulted in having no content-related comments and feedback on their work:

There is no feedback. Supervisors *only give comments on the language and language correction. Nothing has to do with the subject* or on research nor writing as how to develop discussion and arguments and all these kinds of things (C1).

This lack of expertise at the part of some supervisors was also confirmed by the Supervisors themselves:

Unfortunately, some people now are supervising students who *are not qualified themselves*. You see a number of supervisors who *never care to write research anywhere*. They didn't have any [research] article in any periodical. *They never attended any international or local conference* and they *supervise PhDs*. This is a problem. *Those people who you call professors, or whom we call professors, are not qualified*. A professor should be qualified, *should be a researcher, they should be research-oriented themselves (S2).*

Students also reported supervision instability and sometimes they had to change supervisors which might be problematic for them due to the difference in supervision styles among supervisors:

I felt that it's going to be *very difficult actually to change the supervisor* because as you know *every supervisor has their own way [of supervision] (...)* and their own programme [and schedule] to look at the work and so on. I had already finished most of the part with Dr X [supervisor] when, Dr Z [a new supervisor] was nominated actually to be my supervisor. It was just to ensure that I finish and then write the final report to the Graduate College (C3).

C3 candidate illustrates that there was instability in their supervisors because they kept changing their supervisors and this could be one of the challenges that encountered by during their study. Candidates also reported facing some challenges in getting cooperative, supportive, close and timely supervision:

I remember I was planning to write up a chapter. That chapter took three years to get finalized. *I was trying to establish some conceptual framework for my methodological choice and found it difficult. [Before I start working on it]. I went to see my supervisor to just discuss the general plan with them for writing up the chapter on what to be included*

and so on. They told me 'don't ask me, you have to go and write the chapter and then bring it to me and after that we can see. I was just asking for discussion (C1).

Comparing Ph.D. candidates' and supervisors' views we might gain a clear picture about these challenges and how to deal with them. A supervisor (S1) illustrates that there are many challenges that Ph.D. encounter with the methodological issues:

One of the problems, I'm lucky enough to have most of my students were competent in English, and they don't have language problems, but the first problem you could observe, that they lack knowledge on research methodology as well as skills, they come with very little research experience as well as knowledge. They face many problems, regarding where they understand the basic preliminary words and drafting techniques of research proposals (S1).

However, another supervisor's (S2) response contradicts the above mentioned supervisor's views in many ways such as some candidates' low level of proficiency in English Language is one of the challenges which were highlighted by supervisors in addition to the lack of background knowledge in certain areas which could otherwise help in writing their theses successfully:

They [candidates] come from *very poor backgrounds (...)* they don't have good English proficiency. They can't write, they can't speak English. If you ask a candidate how many books you have read in your life time in English, they would say a couple of books, you see. They didn't have this, the real guts to do it. Their English is broken, they cannot express themselves in English, spoken or written. They don't have access to the English culture, to the British or American culture. I was wondering how someone [for instance] could hand in a Ph.D. in literature [when] they come from a very poor, geographical background. They never gone to the cinema, they have never seen a film before; he/she never listened to a song. How come would they be accepted for a Ph.D. study, would they be able, to write about the literature of those people? So they will depend on two or three books of criticism and they will start to copy (S2).

This supervisor went on to comment that candidates themselves are part of the problem because they commit themselves to other duties and they do not have time for their study.

They don't have problems. The problems are themselves. They are not, they don't have *free time for research*, they are all teaching or working, you see, they don't devote any time for research. They are working all day from 8 to 5. *When are they going to sit to study and research?* (S2).

Clearly, this lack of language proficiency coupled with lack of general knowledge and lack of devotion to and commitment to study on the part of the candidates could negatively impact on the quality of Ph.D. research produced by those candidates.

Another supervisor (S1) agreed with these comments but they seem to put that in a sympathetic way:

The main problem is that they are not full-time students. They are working, supporting themselves, their families, and even the pressing economic circumstances have [have an impact] on them (S1).

Lack of academic reading and writing skills on the part of candidates was also highlighted by supervisors:

They never read periodicals. They never read (...) They depend on books and you know how difficult it is to make a Ph.D. out of books. That is one thing. Secondly, they are not themselves trained to research. They never wrote in their undergraduate studies. They never wrote long essays or short essays in the term, in the time of four years' time they, they, they study. So when they come to write research they don't know how to do it (...) people don't know how to compile or how to develop a paragraph (...) they don't know how to develop a paragraph. They know nothing about the simple idea of opening and ending that paragraph. They have never been to any course of criticism, neither theoretical nor practical. But how can you write [a Ph.D. thesis] if you have never been to this kind of courses (S2).

RQ2. How do they respond to these challenges?

Candidates used a range of survival strategies to cope with these challenges and had their theses successfully completed. One of the strategies was seeking help from previous Ph.D. candidates and/or colleagues:

While I was in my office, one of my colleagues came in. He just paid me a short visit and I told him that, I start for Ph.D. but unfortunately I met a lot of challenges and I don't want to give up or surrender. So, I just want to find a way to find access to books. He said, "What was your problem?" I told him that my problem was a problem of resources, and he said that wasn't a problem and that he would help me. And he asked if I knew the books that I want to use. I said, "Yes, I have about five books that I need." Then he invited me to his house and we went there and within half an hour he downloaded four out of the five books that I had ordered through the British Council. And he showed me a website for free books download (C2).

Another survival and coping strategy reported by candidates is the persistence and perseverance to obtain guidance and close supervision from supervisors:

I'm chasing [my supervisor] every week like that call them and say "I have something ready have you finished reading the first one?" Sometimes they say, "No." Sometimes they just can't bring it to me. But I keep on asking them like that. So, I go to them at their office. Sometimes I meet them at their home (C2).

The candidates also reported that they were reading previous theses and following similar styles and formats and generally try to find similar theses to help them curve out their topics and arguments:

I try to overcome these problems [lack of guidance]. I tried to choose one of the theses that have been done outside Sudan for guidance. I spent one complete year just reading and trying to find my way (C1).

Additionally, they use the internet to find similar theses and they start curving out their topics and arguments. In contrast, supervisors reported that they followed many strategies to help their candidates to complete their theses successfully by providing them with books, references and other materials as well as close supervision throughout from the very early stages of the Ph.D. candidature:

Before conducting their research and before reading [the] literature, and then processing to the actual writing. I direct them to focus on literature review first, like six months, so they're reading, and then they come up, give me a summary, oral presentation of what they

have done regarding and [reviewing] the literature, and then proceeding to actual writing. When they write, *I take the whole work, read it carefully, have all my comments written*, and then I ask the student to meet me and we sit together for two to three hours, going over the work page by page, sentence by sentence, highlighting the problems and showing them how to solve them (S1).

Supervisor (S2) went on in the same line reportedly highlighted that they help their supervisees in formulating their research topics:

[One of my Ph.D. students said to me] “I don’t know but I like phonology but I don’t know how to do it. What shall I do, I don’t, I don’t find a [topic] for my Ph.D.” I said, “Do you have a recorder?” [They] said, “Yes.” “Do you know a nearby nursery school?” [They] said, “Yes.” I said, “Go, please, to that nursery school, hide your recorder, play with the children in Arabic and speak to them in Arabic and let the teacher speak to them in Arabic and decide the age. Take from 3 to 5 year-olds. When you finish two hours of recording, come back to me.” [They] said, “But-” I said, “No. Can you do that?” [They] did it. I said, “Now this is your Ph.D.” “What shall I do with it?” “Go and listen. Put your theme at this. You want know at what age those children can pronounce the Arabic sounds” (S2).

All these problems and challenges described above seem to have their impact on the quality of the produced Ph.D. theses as we will see in the following section.

RQ3: What constitutes a good Ph.D.?

This question attempts to explore both Ph.D. candidates’ and supervisors’ views about what makes a good and high quality Ph.D. according to their own understanding. A supervisor (S1) illustrates that a good Ph.D. is the one which has:

For me, a good quality Ph.D. thesis, first of all, depends on, *finding an original topic, originality is very important*, and, when I have a new student, the first thing I ask them is what do you want to do? and then, the other question would be, *what are you going to add to knowledge?* what is your expected *contribution?* And then I don’t normally accept the answers they give, I just ask them, go and read literature thoroughly, and then come back, *see what people have done, and what is left for you to add* (S1).

It can be seen from the above that this supervisor’s views about what makes a good Ph.D. are originality and contribution. It appears that establishing originality in a thesis is something of a paramount importance but Ph.D. candidates face many challenges which may impede them to meet the standards and criteria to achieve originality. Another supervisor (S2) states their views about the deterioration of Ph. D. education due to the above mentioned challenges. They reported that the lenient admission criteria for the Ph.D. degree in turn resulted in low-quality produced Ph. D. theses. They also reported an alarming recent upsurge in the number of people who wish to do Ph.D.:

There is a big problem in the Sudan. Not all of those students who are accepted to do Ph.D.s are qualified to do them, especially in English language. Their English is below the standard. If I had the authority I would not let them do even a postgraduate degree. Doing a Ph. D. in the Sudan is easy now. Anyone can apply for Ph.D. and they will get into it, just like that. If you go to the different universities and you pick any thesis, you will see how things are below the standard and let me say this is a scam, it’s not English at all (S2).

Supervisors also called for rethinking and revolutionising the existing research methodology paradigm in the context of the study which reportedly seems to be contributing to the production of low quality Ph.D. these:

These descriptions [PhDs] are not good and also this *fashion of questionnaire, questionnaire, questionnaire*, all researchers in this country [Sudan] now, in all fields, use questionnaires. They give the questionnaire blindly to the students or to teachers and they answer them. *They produce them out [questionnaire data] in very beautiful diagrams and graphs and tables and that's it, it's a Ph.D. (S2).*

To maintain high quality Ph.D. thesis supervisors also called for limiting Ph.D. education to the main three universities in the country [Khartoum university is one of them] and these universities should make resources and facilities available to postgraduate students besides tightening their Ph.D. admission criteria. They also warned about the duplication of Ph.D. topics due to the lack of databases shared among universities.

Not all universities have the right to offer postgraduate degrees. Postgraduate studies should be limited to very few universities. For example, the University of Khartoum, University of Al Jazeera and University of Sudan for Science and technology, full stop. But these universities including the University of Khartoum should have a postgraduate residence, a postgraduate library and they should be up to date. They should have library (...). They should not accept anybody for Ph.D. research. They should accept distinguished students, and therefore they should write at least twenty pages of research proposal and has to be examined by a panel of professors and they should also have what we call research bank or thesis dissertation titles bank. Because now this research is repeated, you know, because now by writing only two or three pages of research proposal you can get accepted into a Ph.D. programme and you start off your study. Such PhDs could be duplicated anywhere. So we have now duplications, plenty of PhDs, the same topic is dealt with in different universities and they have [different] PhDs (S2).

The same supervisor went on to highlight their own strict way of upholding the standards of high quality Ph.D. regardless of the institutional policies by taking only the best and few number of Ph.D. candidates at a time:

I don't accept (...) anybody to do Ph.D.. While [some] people [may] handle twenty candidates, I may have three or four at a time but they are selected. If I select somebody and I feel that [they are] not up to the standard of Ph.D., I will cross [their] name out and this happened. After [they] spent two years with me, I said to [them], "You can't do it" (S2).

Additionally, students reported that maintaining the quality of Ph.D. research entails cooperative, supportive and high quality supervision:

To raise the quality of the [Ph.D.] research here, *I think we have to appoint a foreign supervisor to be a co-supervisor. It has to be someone from outside Sudan. You know from experience, foreign supervisors are kind with the information they give you and their time and they just give everything (C1).*

Students also suggested that training Ph.D. students on academic writing conventions could also help improve the quality of Ph.D. research:

If we want to improve *our higher degree studies, we have to focus on providing courses on research writing. Actual writing, how to write, how to develop discussion and argument, just all these things. We do not have such kinds of things and experiences* (C1).

Clearly, from the above quotations of both supervisors and candidates, it seems that there are concerns about the quality of Ph.D. research in the context of the study. Participants, however, reported different perceptions regarding the elements of quality in Ph.D. research.

8 Discussion

The findings on the need for supervisors with expertise and subject specialism suggest a significant correlation between good supervision and success and sustainability of high quality Ph.D. thesis. The findings resonate with the views and findings of many researchers (e.g., Halse & Malfory, 2010; Heath, 2002; Löfström & Pyhäntö, 2014) in that supervision and the role of subject-specialist supervisors are highly important as they can be the guardians of quality assurance of the produced Ph.D. theses.

The findings on that candidates are left without guidance to struggle with their Ph.D. candidature corroborates with similar findings in the literature (e.g., Fergie, Beek, McKenna, & Creme, 2011; Krase, 2007). One of Fergie et al.'s (2011, p. 236), participants reported lack of guidance and support with their Ph.D. candidature "You're on your own, and it [Ph.D.] requires a great deal of diligence and discipline, and it's a lonely walk." Our participants in the current study reported similar challenges but their challenges are compound in nature. Fergie et al.'s (2011) study was conducted to explore experiences of five Ph.D. students at the University College London taking a writing module on 'developing a literature review'. The study focused on writing rather than supervision challenges since the issue of good and adequate specialist supervision is taken for granted in the context of their study. In contrast, the findings in the context of the current study suggest that challenges encountered by the Ph.D. candidates are of a compound nature as they involve both lack of supervision with expertise and subject specialism on the chosen area of the Ph.D. research and the lack of support and advice on the academic writing skills and conventions. Moreover, the call by candidates for the appointment of foreign co-supervisors who are perceived to be more cooperative and supportive than the national/local supervisors suggest some socio-cultural implications to be considered in any plans for professional training of national/local supervisors.

To sum up, the main findings were summarized and discussed in relation to the relevant literature. Several challenges were reported the candidates such as supervision-related challenges, resources related challenges and other significant ones. Some key issues such as technical supervision or supervising by general experience of research process versus supervising by expertise and specialist knowledge of the Ph.D. topic were elaborated.

9 Conclusions, Recommendations, Implications and Limitations

The present study was able to provide insights and deep understanding to Ph.D. students' perceptions about some of the challenges that they encountered during their candidature. Based on the study findings, the study concludes that Ph.D. candidates in questions have encountered several challenges and difficulties during their course of the study and these challenges seem to have negative impact on the quality of the candidates' produced Ph.D. theses and Ph.D. education in general.

The most common challenges which emerged from the participants' responses are: First, intellectual challenges such as difficulty on how to choose the study area and finding a topic, difficulty in data collection, lack of research culture and training, topics rejection by supervisors, ability to reflect on, report on one's progress,, constructing a theoretical/conceptual framework that guide the research, getting finished on time: Poor submission and completion rates, and maintaining high-level academic and scholarly writing. Second, supervision-related challenges such as ineffective supervision, insufficient guidance, lack of constructive feedback, difficulty in finding supervisors, changing supervisors/instability in supervisors, inadequate supervision, supervisors' lack of expertise and specialist subject knowledge in the chosen Ph.D. research area, lack of effective joint supervision schemes, unsuccessful supervision cycle, busy supervisors, lack of progress, fragmented communication with supervisors, lack of timely feedback, lack of motivation as well as lack of appropriate means of communication with supervisors.

Third, organizational challenges which are: Lack of planning and focus, heavy workloads, problems in attending supervisory meetings, timetabling and time management, disengagement with research and research community, balancing research commitments with other commitments, and lack of time for reading. Finally, resources-related challenges such as lack of references, lack of access to research databases, lack of editing and proof-reading skills, and challenges in finding relevant literature. Regarding participants' perceptions about what makes a good quality Ph.D.; this can be summarized as follows: Originality and novelty, should be based on a genuine problem, can answer real life problems, easy to read and understand, has contribution to the existing knowledge of the field, well-organized, written in plain English, based on rich data and guided by sound theoretical framework, supportive and cooperative supervision, foreign co-supervision, and training on academic writing skills and conventions. As for candidates coping strategies in dealing with the reported challenges, a number of strategies were reported such as seeking help and resources from others such as previous Ph.D. students and other staff members. Furthermore, they tend to copy writing styles from previous Ph.D. theses, contacting previous Ph.D. survivals, etc.

Based on the findings of the study number of implications and recommendations can be presented and discussed. The results suggest that Ph.D. education in the context of the study needs a reform in a range of aspects (e.g., admission regulations, supervisors' and candidates' training, revising supervision procedures,

making resources available and accessible, and using the internationally-recognized benchmarking standards and criteria in Ph.D. award and education in general). As we have highlighted above, the challenges seem to have negative impact on the candidates' Ph.D. theses quality and Ph.D. education in general. The results indicate that these challenges can be overcome by modifying and updating Ph.D. award rules and regulations and using the internationally-recognized benchmarking standards. Moreover, the results suggest the need for research training and development programs to be introduced to help Ph.D. candidates with both research process (methods and methodology) and research product (academic writing and best practices of writing up Ph.D. thesis). Ph.D. candidates should be encouraged to publish throughout their candidature in peer-reviewed journals and co-authoring with their colleagues and supervisors should also be encouraged. Additionally, transferrable skills related to career development should be introduced and emphasized. Further, plagiarism detection software should be used to help students to learn about plagiarism in order to avoid the practice. Supervisory boards should be set up to regularly monitor candidates' progress.

These supervisory boards should include the main supervisor and other two supervisors, one acting as an advisor and the other as a head for the board. Supervisors should be nominated and assigned according to their areas of expertise and specialist knowledge in the area of Ph.D. research topics and the number of supervisees should not exceed more than five at a time. Graduate college of the University of Khartoum should organize annual postgraduate conferences, workshops, seminars, symposia to offer a platform for postgraduate students where they can share their ideas and report their preliminary findings at different stages of progress, and to get timely feedback about what they have done in their ongoing Ph.D. projects. Funds should be made available to help Ph.D. candidates to finish their degrees on time. Finally, resources should be made available and subscription to international peer-reviewed journals and famous database should be made to guarantee access to help candidates keep abreast with the debates and latest developments in their relevant fields of researched.

The study is an explanatory in nature. It adopted a qualitative methodology with interviewing being the method of data collection. Being a small scale study including only five participants from only one discipline, the findings of the current study are not intended to be generalizable. The implications of the study, however, have an ecological significance for the doctoral education in the context of the study as, to the best of our knowledge, there has not been any study so far been conducted on this topic in the context. We therefore, believe this study would be pioneering and would open up potential avenues for more future search in the Sudanese context and beyond across the region. The implications could also be transferable to and applicable in other similar contexts. To gain more insights into and understanding of the challenges of Ph.D. education in Sudan and thus suggesting further recommendations for Ph.D. research training and development, future research could expand the current investigation by including more universities and participants as well as disciplines. Methodologically, future studies could combine both text and context by analyzing the text of Ph.D. theses themselves and the context in

which they have been produced. Corpus-based textual analysis methods combined with ethnographic contextual analysis methods would aptly fit the purpose.

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