

Exploring Student-specific Factors Affecting PhD Theses Completion

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ABSTRACT The debate on what really contributes to successful PhD theses completion within minimum prescribed time is perennial and unending. A lot of studies on post-graduate research normally focus on modes of research supervision and student funding as the most important factors in PhD research work. However, there is a need to examine student-specific factors. Students may have the best research supervisors and be exposed to the best supervisory practices as well as have adequate research funding but still fail to complete their theses. One needs to have gone through a doctoral programme to understand and appreciate the student-specific factors and conditions that promote or hinder research progress. In this paper we argue that student-specific and not only institution-specific factors are very crucial in the successful completion of PhD theses. The presentation makes a critical analysis of available literature and also draws from the writers' own experiences as recent doctoral graduates. In the paper we further contend that motivation, commitment, diligence, autonomy, organizational and communication skills, research experience as well as ability to negotiate and foster working relationships with supervisors, among others, are the critical factors that promote research progress and ultimate completion of a PhD thesis.

INTRODUCTION

A doctorate degree is the highest level of academic/professional degree. It is the highest academic degree awarded by a university to students who have completed studies beyond the bachelor's and/or master's degrees, and who have demonstrated their academic ability in oral and written examinations and through original research presented in the form of a dissertation (thesis) (NTNC 2002).

Macquarie University (2015) in Sydney Australia states that the Doctor of Philosophy (PhD) degree is awarded for:

... research that demonstrates that the candidate has the capacity to conduct research independently, and form a distinct contribution to the knowledge of the subject and to afford evidence of coherence and originality shown either by the discovery of new facts or by the exercise of independent critical power.

Of importance on the above observation is one's ability to carry out research independent-

ly. Even though the candidate works with a supervisor or supervisors, the ultimate responsibility of undertaking the research process and producing a research report acceptable by external examiners is the candidate's responsibility. The quality of a PhD study among other issues, is measured against its contribution to new knowledge by advancing knowledge frontiers in the chosen field.

Doctorate degrees are awarded to the scholars for the creation and interpretation of knowledge, which extends the knowledge frontiers of a discipline, usually through original research. The process starts with identification of a research interest area – developing a proposal and defending that proposal before undertaking a study that contributes to new knowledge. As already alluded to, doctoral work is about an autonomous and independently managed research process (Cardona 2013).

There are different modes of offer for PhD study. It can be full-time, part-time or through Open and Distance Learning (ODL). There are different nomenclatures used to refer to doctoral degrees in different countries and in different field. It can commonly referred to as a Doctor of Philosophy (PhD), a Doctor of Education (D.Ed/Ed.D), Doctor of Business Administration (DBA), Doctor of Engineering (D. Eng), Doctor of Literature and Philosophy (DLitt et Phil). This paper looks at the generic doctoral degree as a programme of study after a Master's Degree, wheth-

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er it is an academic or professional degree and in any discipline.

The importance of a PhD is judged around the realization that higher education and research have come to the forefront of international debates about economic growth (Tzanakou 2014). Modern societies require highly-educated people with technical and professional skills in a knowledge-based economy (Brinkley 2006). To this end, doctoral education becomes important relevant knowledge in different fields is a driver to economic growth (Leadbeater 1999). It is further noted that without key researchers to it is difficult and often impossible to develop and sustain a knowledge economy. This is all about quality human capital development for economic development (Auriol 2010). Hence, the emphasis on doctoral education in the world today.

Doctoral education, with its emphasis on research training, assists in producing graduates with important transferrable skills such as problem-solving, critical reasoning, thinking in-depth and from different angles and perspectives (Tzanakou 2014). Such skills are important in producing independent thinkers and astute researchers with a flair to seek to inquire into issues and provide solutions required in the modern society.

The Problem of PhD Graduates in the World

In this paper we argue that it is not feasible to make a comparison of doctoral completion rates and problems associated with PhD graduates for universities in different republics because context differs. In support, Hall et al. (2010) contend that there are too many confounders in the national contexts of the universities for such a comparison to be useful. Furthermore, in this context, it is reasonable to ask if it is possible to make legitimate comparisons of doctoral programs that operate within different national and historic contexts (Hall et al. 2010). It is against this backdrop that our paper shall focus on South Africa as we feel that international comparisons are not meaningful at all. Some of the authors argue that the lack of necessary and appropriate data is probably the greatest stumbling block at the moment, whether for cross-national comparisons or simply for cross-university comparisons within a single country (Hall et al. 2010)

Review of literature shows that there has been concern the world over about non-completion of PhD degrees for example in Canada, UK, USA, and Australia (Smith et al. 1993; Sheridan and Pyke 1994; Kerlin 1995a, b; Holdaway 1996; Haksever and Manisali 2000; Lovitts and Nelson 2000; Martin et al. 2001; Elgar 2003; Kiley and Mullins 2004; Bourke et al. 2004). So it appears as if the problem of non-completion of PhD thesis is worldwide although in certain developed countries as shown in the next paragraph, the problem is under control.

Attrition has also been viewed as another cause of non-completion of doctoral studies with far greater than 50 per cent attrition rate in America for PhD studies (D'Andrea 2002). However, some university estimates have suggested that attrition over the first several years of candidature is less than 40 per cent. (For example, the University of Arizona's published statistics indicate that 36 per cent of PhD candidates in the 1990s 'attrited' in their first six years of candidature (Kiley and Mullins 2004; Bourke et al. 2004). Other studies have suggested that more than one third leave in the first year (Lovitts and Nelson 2000; Kiley and Mullins 2004; Bourke et al. 2004). At the high end of the scale, some estimates based on cohort studies have been that doctoral candidate attrition overall may be as high as eighty-five per cent in the USA (D'Andrea 2002). At the lower end, Colebatch (2002) suggested that completion rates for research degrees in Australia have increased considerably since the 1980s to between eighty and ninety per cent in the mid-1990s (Kiley and Mullins 2004; Bourke et al. 2004). A comparison of America and Australia show that the later has drastically improved in terms of the PhD completion rate while the former is still struggling with the problem of attrition rate.

OBSERVATIONS AND DISCUSSION

The Problem of PhD Graduates for Designated Groups in South Africa

It is our view that PhD holders are valuable national resources well placed to produce knowledge required to alleviate pressing national problems and therefore play an integral role in universities in the production of knowledge and skills required for the economy to be functional. Against this background, we argue that there

should be racial equity in the production of PhD holders across the country if their impact is to be felt. Backhouse (2009) concurs with our assertions when he postulates that, in 2006, only 1100 people graduated with doctoral degrees in South Africa. This limits the potential for research and improvements in higher education. In addition, 618 of those graduates were white, making it difficult to address equity concerns. Within the higher education sector there are debates about how to increase enrolments in doctoral education and the best way to run PhD programmes for effective learning, high quality research results and for efficiency (Backhouse 2009).

According to Council for Higher Education (CHE) (2004) it is shocking to find that black Africans, coloureds and Indians are still marginalised in the attainment of PhD degrees. CHE (2004) document indicates that in 2000, nineteen percent (Black African), five percent (Coloureds), six percent (Indians) and a whopping seventy percentage (Whites) attained PhD degrees across South Africa while in 2005, twenty-nine percentage (Black Africans), six percentage (Coloureds), seven percent (Indians) while fifty-nine percent (Whites) attained this highest qualification. The report above shows that the issue of equity needs to be attended to and addressed as a matter of urgency.

Herman Elusive (2011) also observed that the number of PhD graduates increased significantly between 1996 (699 graduates) and 2006 (1,100 graduates). This comparative analysis indicates how far South Africa has moved towards equity goals. While eighty-seven percent of all doctoral degrees in 1996 were awarded to white students, the profile changed dramatically 10 years later but was still not representative of the total population. For example, fifty-six percent of all doctoral graduates in 2006 were still whites (although whites made up only about nine percent of the total population), while the number of African graduates represented thirty percent of the total (although African made up seventy-nine and a half percent of the total population). The remaining number of graduates included Indians (8%) and Coloureds (5%).

The Problem of Non-completion of PhD Theses

The statistics given in the preceding sections of this article show that South Africa has

not been able to produce enough PhD graduates over the years due to a plethora of factors chief among them being non-completion of PhD thesis. It is therefore imperative for this study to look at the reasons why students fail to complete their thesis.

In a study conducted by Myers (1999), candidate responses revealed that time and financial management along with professional obligations and personal reasons were the most significant factors in degree non-completion. A secondary factor that emerged from his study was that of financial concern and inability of how to obtain information and resources to address this concern.

The level of stress involved has also been identified as a major reason that contributes to non-completion of dissertation by students. This is supported by Powell and Dean (1986) in Myers (1999) when they articulate that the stress resulting from working on the dissertation is of two types: stress in the social sense and stress in the task sense. They assert that stress in the social sense is brought about when the student is unable to socialize and relax with family, friends, and significant others without feeling guilty that time is being wasted that could be spent working on the dissertation. On the other end, stress in the task sense is brought about because the amount of time spent working on the dissertation makes the researcher feel negligent in terms of time away from family, friends and significant others. This study therefore implores supervisors to be cognizant of these two levels of stress so that they would be able to assist their students manage them or rather send them for counselling sessions.

Katz and Hartnett (1976) in Myers (1999) have identified some of the problems frequently associated with doctoral education: They argue that students are rarely provided with enough information about the department or the institution that allows them to make a sufficiently informed choice. They also advance that graduate departments require all sorts of information from their applicants, but feel no similar responsibility to make themselves known to their prospective students. Students hope to join a community of scholars. Instead, they find themselves being pushed into relative intellectual isolation from other people and concentrating in a narrow specialty that few can share with them. Another reason given was that students expect-

ed lively interactions that is, sharing ideas and working with fellow graduate students. Yet they often found very competitive atmospheres and inadequate opportunities for working with others. In our opinion, this frustrates students especially those regarded as social learners. They also advance that students desire to work with professors who will guide them and reflect on their work. However, they find access to professors limited, and at times they are subjected to treatment they consider demeaning. Another crucial point they raise is that of students wanting friendship and expansion of their personal and social being. Instead, they are overworked or emotionally pressed, with insufficient time and energy for the cultivation of their personal lives. Given all these reasons, Myers (1999) affirms that many students therefore thought about quitting before completing a doctorate.

Literature also shows that most of the students drop out of the PhD program at the dissertation stage. Persistence (Girves and Wemmerus 1988; Myers 1999) is one of the key factors leading to the successful completion of the doctoral degree. It is therefore important for supervisors to be thoroughly trained so that they would be able to assist their students overcome the challenges they will be facing at the dissertation stage. Also if supervisors are not patient with their struggling students, this automatically pushes them out of the system.

Supervisor and supervisee relationship has also been identified as another major reason why students fail to complete their PhD degrees. According to Bowen and Rudenstine (1993) as well as Jacks et al. (1983) in Myers (1999) problems such as difference in expectations between the promoter and student, unavailability of the promoter, and lack of regular contact between the student and the promoter frustrate students and affect their progress.

South African University and the PhD Problem

Following the surge in tertiary education opportunities coupled with the opening of all the country's universities to all sections of the population (Herman 2011), the annual number of South African University graduates has doubled since the end of Apartheid in 1994. However, the percentage of doctoral graduates of all university students remained static at one percent or four percent of all postgraduate students

and bold intervention is needed to increase the number of PhD graduates in South Africa (Herman 2011).

In 2007 South Africa produced 1,274 PhD graduates. The highest percentage of graduates was in social sciences (34%), which, with humanities (20%), accounted for more than half of all PhD graduates. Natural and agricultural sciences accounted for twenty eight percent, health sciences had ten percent and engineering sciences, materials and technology had only seven percent- the lowest percentage of graduates (Herman 2011). It has been indicated in this study that South Africa only produces 26 PhD graduates yearly per million of the total population. It is therefore critical for industry and universities to reinforce their relationship in order to boost the production of doctoral students.

Critical Social Theory as Theoretical Underpinning

The argument in this presentation is informed by the critical social theory. This theory contends that society is unequal in many ways and the 'transformative social agenda requires a commitment to review social injustice and change the status quo' (McAllister et al. 2006: 1). The playing field in the education system in South Africa is not level. Students from previously disadvantaged and marginalized groups still have serious challenges in their academic pursuits.

The students' cultural background might also influence their self-direction or structure in completing academic tasks (Tweed and Lehman 2002). Some students prefer self-direction while others prefer to be directed. However, it is no longer time to mourn and look at one's disadvantaged position as a handicap. Aspiring doctoral students should seek to change the status quo and looking at acquiring doctoral degree as intimidating and unachievable should change. There is need for self-belief.

One of the critical elements of critical social theory is its emphasis on 'promotion and empowerment of the voices and practices of disempowered and non-dominant groups in society' (Butin 2005: 91). Through education, particularly doctoral education, students from previously marginalised groups should find their voice. Inequalities in educational attainment as a result of class system in society should be

eradicated as this serves to propagate unjust social systems.

Self-motivation and PhD Thesis Completion

The Self-Determination Theory indicates that intrinsic motivation (doing something because it is inherently interesting or enjoyable), flourishes in contexts that satisfy human needs for competence, autonomy, and relatedness (Ryan and Deci 2000). Postgraduate students should have strong reasons for pursuing a PhD or Master's degree. They should have a high sense of ambition and be highly motivated to learn new things and acquire a graduate degree. Students need to pursue a PhD for the right reasons and this will assist in ensuring completion in due time. Unfortunately, some students may not have strong reasons for pursuing a PhD degree and end up dropping out without completing.

Self-motivation is key to persistence and eventual completion despite the rough terrain. Some rate motivation as the most important factor necessary for completion of a doctoral programme even after high-intelligence. A candidate for a PhD must have a strong desire to acquire the degree and with a strong sense of purpose one can overcome any obstacles on the way. The PhD journey may not be an easy one but one can achieve despite challenges faced. Some of the motivating factors for acquiring a PhD include enhancing earnings, prestige, upgrading professional status, widening career options, prestige, competition, pressure, self-actualisation, need to research and share knowledge (Lertputtarak 2008). In a related study, Cardona (2013) found that intrinsic extrinsic and autonomous motivation was important in sustaining students' motivation towards doctoral degree completion. This is consistent with the self-determination theory view that if a student's level of motivation is high the student will be in a position to achieve tasks before them (Williams and Deci 2000).

Research Interest and PhD Thesis Completion

Research interest is very important for one's effective involvement in a research programme. It is research interest that often sustains one on the long, tedious and often frustrating journey in PhD research work. If one lacks interest in research activities it would be very difficult to

put in the work required (Dale 2005). In a related study, Myers (1999: 61) found that participants ranked "frustration and/or loss of interest" as the biggest barrier to the doctoral degree completion. One cannot be taught to develop interest and interest is one of the intrinsic drivers necessary in the attainment of a set goal.

Jiranek (2010) underscores the importance of personal factors such as student quality as a predictor for PhD theses completion. A doctoral student is expected to develop interest in research, particularly in the research area under study. It is such interest that will keep the student focused. A doctoral student is also expected to read around areas related to one's area of study. This may involve gathering and reading successfully completed PhD theses related and not related to your study in order to learn the techniques that can be applied to one's own.

Research Training and PhD Thesis Completion

There are numerous problems encountered by PhD candidates such as inadequate research background; lack of training in methodological and writing skills due to inadequate Bachelors and Masters training (Dietz et al. 2006). All these challenges and many others, impact negatively on students' progress and ultimate completion of research theses. Research training, for example, is very important in ensuring that students understand all the principles and procedures around carrying out a research project. Similarly, Morton and Worthley (1995) note that training provided in research methods courses is not sufficient to undertake rigors of doctoral research. Some of the hindrances to thesis completion include lack of understanding of the thesis writing process and difficulties in data collection and analysis (Wong and Wong 2010). In a study on variables attributed to delay in thesis completion by postgraduate students, Ngozi and Kayode (2014) found that student-supervisor relationships did not delay completion to a great extent but students' lack of research training was an important factor.

Hollingsworth et al. (2002) carried out a study and found that research training, through mentoring, prior to doctoral studies engagement enhanced research understanding and research practice. Students should network with established researchers and have their own mentors

in research. Through working with mentors students are practically involved in the research process and this helps enhance their understanding of how to carry our research studies. On the same note, Myers (1999) observes that lack of understanding of the thesis writing process was also found by Myers as a major hindrance in thesis completion. Glatthorn (1998: 211) also notes that fear arising from the “lack of knowledge and from their own insecurity.” may hinder thesis completion while Myers found that post-graduate which results in their inability to apply and transfer the appropriate skills and research expertise to their supervisees.

Negotiating Successful Working Relationships with Supervisors

There are a varied range of glitches that post-graduate students encounter in their studies the world over, supervisor-supervisee relationship topping the list. Wadesango and Machingambi (2011) assert that supervisors create a number of problems that cause post graduate students’ studies to derail. Postgraduate supervisors must therefore have the veracious knowledge and expertise, be supportive and establish a healthy professional supervisor-supervisee relationship in an endeavor to reduce the attrition rate.

The supervisor plays a critical role in the mentoring, counselling, guiding and coaching of the post- graduate students. It is therefore imperative for universities to give enough support and training for supervisors so that they would build a good rapport with their students and treat them in a professional manner. Our assertions on this issue also concurs with other authors (Seagram et al. 1998; Knowles 1999; Wisker and Sutcliffe 1999) who view the relationship with supervisors as a key factor in study success. It is our take that good supervision is therefore essential to efficacious post graduate research. This may be an important reason why students experience the process as complex and often unstable (Mouton 2007). Research submits that up to half of the students who begin post graduate studies do not complete their studies at all due to sour supervisor-supervisee relationships (Golde and Dore 2001 as cited by Wadesango and Machingambi 2011). This is unacceptable since these supervisors are paid to deliver yet the opposite is true.

Kearsley (1998) argues that students are not getting enough time with their supervisors because the supervisors are overworked and there is an acute shortage of qualified supervisors. Given such a scenario, it is rather absurd to blame the supervisor entirely for incompetence. The administrators should shoulder some of the blame since they would have failed to train their staff in supervisory practices. The issue of work overload should be addressed as well by the administrators since supervisors cannot be expected to be effective if they have too many obligations at their disposal. Administrators should be aware of the fact that too many errands can lead to indisposed performance. A study focusing on LIS schools in East, Central and Southern Africa on the supervisors-supervisee relationship among postgraduates revealed the following: delays in receiving feedback, lack of guidelines stipulating supervision, poor supervision, that is, no schedule for meetings, no records of discussions, etc., no mechanisms for redress, 40 percent supervisors were always too busy to meet students, heavy teaching loads for faculty members (Mutula 2009). An overloaded supervisor cannot be expected to produce miracles regardless of how competent one is.

Some universities require supervisors to sign supervision contracts with their students detailing roles and responsibilities of each part, meeting times and deadlines. It is important that both parties respect the contract. There is need for the supervisor to negotiate and monitor a timetable with the supervisee. If a student is full time, monthly meetings should be the norm, and these meetings should be held whether or not the student has completed a piece of written work. We also propose that supervisors do everything they can to provide careful analysis and constructive criticism of all work submitted to them within an agreed period of time. In most cases, students’ efforts are stifled by supervisors who do not make themselves available, as feasible, for discussions with students outside an agreed programme of meetings.

Working with Great Autonomy

Holec (1981: 3) cited in Benson and Voller (1997: 1) who describes it as ‘the ability to take charge of one’s learning.’ The ability to work and think independently is one of the basic prerequisites for studying a research degree. The

whole research process from topic identification to data collection and report writing can be a cause for great anxiety for many students because of its nature characterized as the ultimate self-regulated learning task (Sachs 2002). While the student works with a supervisor or supervisors, the greatest responsibility is placed on the student to work with a certain degree of autonomy to ensure completion of tasks in due time. On the same vein, Ngozi and Kayode (2014) observe that student drop out of a postgraduate programme or completion is largely dependent on the ability to work with autonomy.

In working with great autonomy postgraduate research students should not procrastinate in taking decisions about their studies and aspects of the research study and should be driven by an intrinsic motivation to complete their theses in minimum time allowed by the university (Kogenko et al. 2003). Students who are intrinsically motivated to work on their studies without external push are more likely to complete their theses earlier than those who lack personal initiatives.

Multi-Tasking and PhD Thesis Completion

Delbridge (2001: 3) defines multitasking as accomplishing multiple goals in the same general time period by “engaging in frequent switches between individual tasks.” This is very common with Doctoral students who are mostly adult learners with other responsibilities. Mackenzie and Ling (2009) observe that research as a journey occurs within the context of other journeys work, family and friends – one can add more journeys to these. Ho et al. (2010) also found out postgraduate research students had a lot of competing demands which impact negatively on their completion of their theses. Some are personal issues such as like recreational activities, life events, family, children, friends, pregnancy, giving birth and caring for a baby, which could lead to delay in thesis completion. Similarly, Pitchforth et al. (2012) also observe that completion is dependent on many interacting factors hence the importance of a student’s ability to multi-task.

In the South African context, Dell (2010) states that eighty percent of the doctoral students are part-time and they take far longer to complete their degrees than their European or American counterparts. Part-time students face

a myriad of problems in the university and these range from being overwhelmed by university and outside university workloads to dealing with family issues (Cohen and Greenberg 2011).

The importance of ability to multitask is underscored by Hembrooke and Gay (2003) who state that if one is not able to multitask some of the tasks may suffer. It becomes a problem when doctoral work suffers because the student is involved in completion of other equally important and demanding tasks. Given that in multi-tasking, all the tasks are important and require fair allocation of time and resources, it really becomes a crucial issue that doctoral students should have the ability to multitask especially in the South African context where most of them are part-time students with other engagements.

CONCLUSION

The problem of low doctoral graduation rates is a real one in South Africa. The problem is serious when considering the under-representation of formerly disadvantaged racial groups. There is a need to look at the problem from various angles. There may be different supportive systems and measures in place in the country and in universities but the undertaking and eventual completion of a doctoral study rests with the candidate. It is not necessary for students from previously disadvantaged groups to mourn over one’s disadvantaged position. There is need to challenge the status quo in order for the country achieve a significant improvement in doctoral graduates from black South Africans as such graduates are key drivers in the knowledge economy. Students undertaking doctoral programmes should be well-motivated, committed, able to multi-task and negotiate successful working relationships with supervisors as well as be able to work with great autonomy. All these are student-specific issues necessary for completion of a doctoral study in minimum prescribed time.

RECOMMENDATIONS

The researchers recommend that selection of candidates for doctoral study should consider character attributes instead of solely focusing on academic qualifications. There should be ways of ensuring that students selected for doctoral study are mature, committed and have the ability to multi-task. Sound research training pro-

programmes should be put in place to support doctoral students in their research work. Doctoral programmes should support students in dealing with personal psycho-social issues as these, if left unaddressed, often negatively affect performance and ultimate completion of a doctoral study within the required time.

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