DETERMINANTS OF DISSERTATION COMPLETION OF EDUCATION DOCTORAL STUDIES IN SELECTED KENYAN PUBLIC UNIVERSITIES

BY

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DECLARATION

Declaration by the Candidate

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DEDICATION

I dedicate this work to my late mother, Elizabeth Ronoh, for her encouragement and belief in my abilities. To my husband Stephen Misoi and my children, Tracy, Enock, and Eddy, thank you for your emotional support, sacrifice, and understanding even when I had to use family time for studies. I sincerely appreciate my supervisors, Prof Chang'ach and Dr Chemase, for their timely feedback and patience in developing my research skills and inspiring me in difficulties. May this degree give back to you all and to society at large.

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ABSTRACT

There is a great demand internationally and locally for a workforce with high-quality knowledge, skills and attitudes in all economic sectors. Studies reveal low completion rates and delays in completing doctoral studies experienced globally and in Kenya. This study aimed to evaluate the determinants of dissertation completion in doctoral studies in selected Kenyan public universities. The objectives that guided the study were: to assess the preparedness of doctoral education students for the completion of the doctoral dissertation, to explore accessibility and use of learning resources by doctoral education students for the completion of the doctoral dissertation, to examine perceptions of education administrators on completion of doctoral dissertation and to explore supervision experiences of doctoral education students and supervisors on completion of doctoral dissertation. The study used Tinto's doctoral persistence theory and Weidman, et al. graduate socialization framework. The study employed a mixed-method study as a convergent parallel research design framed within a pragmatic philosophical view. Purposive, quota and simple random sampling strategies were utilized in selecting 107 participants (55 doctoral students, 32 supervisors and 20 administrators). Data was gathered using semi-structured questionnaires, focus group discussions, and individual interviews. Descriptive statistics was used to analyze quantitative data, and qualitative data were coded and analyzed thematically. The study established that public universities in Kenya face significant challenges in ensuring the timely completion of doctoral studies. Doctoral students were often unprepared for dissertation completion and struggled with limited access to research resources, coupled with insufficient digital skills necessary for data collection and analysis. Inconsistencies in the implementation of a formal supervision structure create insufficiencies in the research process. Supervisors also face considerable challenges including: the shortage of qualified faculty, a heavy workload, and inadequate institutional support, making it challenging to provide effective and practical guidance. Doctoral students experience various personal and professional obstacles such as: work-related pressures, psychosocial difficulties, insufficient academic and institutional support, all of which hinder dissertation progress. To address these challenges, the study recommends: strengthening student-supervisor collaboration and reviewing and fully implementing policies governing doctoral studies. Enhancing institutional support mechanisms, securing additional research funding, and prioritizing capacity-building initiatives can improve dissertation completion rates. Universities should facilitate research by providing necessary resources and investing in infrastructure to create a conducive academic environment. By implementing these measures, public universities in Kenya can foster a more supportive research culture, improve doctoral completion rates and the overall quality of post-graduate education.

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ABBREVIATIONS AND ACRONYMS

CERM-ESA	East and South African-German Centre of Excellence for Educational Research Methodologies and Management
CGS	Council of Graduate Studies
COD	Chair of the Department
CPE	Centre for Public Education
CUE	Commission for University Education
DAAD	German Academic Exchange Service
FGD	Focus Group Discussion
H.O.D.	Head of Department
NACOSTI	National Commission for Science, Technology & Innovation
TSC	Teachers Service Commission
UNICEF	United Nations International Children's Fund

CHAPTER ONE

INTRODUCTION TO THE STUDY

1.1 Introduction

A doctoral degree is perceived as the peak of educational achievement in the 21st-century knowledge economy. After all, it is a key pillar in establishing the human capital required for economic, social, and political development nationally and globally (Itegi, 2020). Michubu et al. (2019) note that there is a great demand for a workforce with high-quality knowledge, skills, and attitudes that can boost transformation in all life spheres and the achievement of Sustainable Development Goals (SDGs). The return to a knowledge-driven society from a prepared doctoral-level scholar-practitioner has value in formal inquiry to solve the real problems of practice and discover innovations that benefit the field (Offerman, 2011).

Internationally, doctoral studies are generally characterized by low graduate output, with the majority of students who finish their dissertations completing them using more time than initially planned (Rooij et al. 2019). In African universities, doctoral candidates navigate through many obstacles that dictate persistence and duration to study completion (Amutabi, 2018). Despite the rise in the number of students enrolling in doctoral programmes, research has revealed that there is still a concern about the high level of non-completion, low completion rates, and extended completion duration in many institutions in Kenya and internationally (Itegi, 2020). In 2017, the United States graduated 67,000 PhDs, South Africa graduated 2000 PhDs, recording the highest in the African continent, while Kenya graduated less than 400 PhDs during the same period (Amutabi, 2018). Amutabi reiterates that a doctorate candidate studying in a Kenyan university takes an average of 10 years to complete their doctorate, and the

majority complete at an advanced age, ranging between 40-50 years. This implies a shorter duration to contribute to innovative ideas.

In the comparative global ranking of universities, Kenyan research output is wanting due to the few doctoral candidates graduating yearly; this delay has raised a lot of concern among the stakeholders (Amutabi, 2018; Khamala et al., 2018). As the completion of doctoral studies maintains undesirable levels, doctoral-granting institutions and other stakeholders are faced with identifying the contributing factors for non-completion and developing corrective measures to demonstrate continuous improvement for both internal and external accountability entities (Bogle, 2010; Levitch & Shaw, 2014). This has increased the need to interrogate determinants of duration to completion of doctoral education programmes.

This mixed-method study is therefore designed to investigate determinants of dissertation completion of doctoral studies in Kenyan public universities. The study employed both qualitative and quantitative techniques in data collection and analysis. The study focused on four main objectives; to assess the preparedness of doctoral education students for the completion of the doctoral dissertation, to explore accessibility and use of learning resources by doctoral education students for the completion of the doctoral dissertation, to examine perceptions of education administrators (Heads of Departments and Post-graduate Deans) on completion of doctoral dissertation and to explore supervision experiences of doctoral education students and supervisors on completion of doctoral dissertation.

1.2 Introduction of the Chapter Contents

This chapter presents the background of the study, the statement of the problem, the research objectives, and the questions. It also points out the significance of the study,

its scope and limitations, the theoretical framework upon which it is based, and its conceptual framework. The assumptions and definitions of key operational terms used in the study are also presented.

1.3 Background of the Study

"Education is the most important component that can change the world" (Momanyi, 2022, p. 28). Momanyi underpins the fact that education is an important undertaking for any country to realize economic transformation. This is because a better-educated population has higher chances of employability more innovative and more reliable in decision-making processes, reduces dependence on public assistance programs, and has higher tax revenue. An educated society is crucial for its economic growth (Virtanen et al. 2017). The higher the level of education, the higher the advantages society is likely to gain (Leijen et al. 2016). A doctorate is the highest degree level that an individual can obtain in any country, and individuals with a doctorate are much respected in society and are considered more visionary (Itegi, 2020; Munim & Schramm, 2018). The quality and relevance of education and training at all levels are critical to sustainable socio-economic development in society today (Mogambi, 2013; Kipkebut, 2010; Kinyanjui, 2007). Kenya now considers higher education as a main means to economic development and as a trigger to achieving industrialization goals, as stated by Vision 2030 (Malechwanzi et al. 2016). Higher education, especially post-graduate education, is expected to produce skilled professionals through training and research; therefore quality and rate of completion of postgraduate education and research are of great concern (Government of Kenya, 2007). In Kenya today, institutions for higher education, training, and learning are expanding at a very high rate, with postgraduate students' enrolment rising significantly (Commission for University Education, 2018).

It is therefore expected that trends of high completion rate are consequently realised (Rong'uno, 2016).

The low completion rate of doctoral studies is now a worldwide concern in the education sector (Bekova, 2021). It was reported by Costa Bispo and Pereira (2018) that the completion rate of doctoral studies within the stipulated time in Brazil stands at around 37%, in Malaysia is 51% Jeyaraj (2020), in Iran it is 23% Sherkat and Chenari (2020), in Pakistan, Ahmed et al. (2021) found that more than 61% of the doctorate students take more than two years longer than the programmed time to complete their doctorate studies. In Kenya, university students' enrolment for bachelor's, master's and doctoral programs in the academic year 2016/2017 was 547,316 and the upward growth in enrolment is expected to continue (CUE, 2018) however, Kenyan institutions of higher learning are greatly challenged with low completion rates of doctoral studies, delivery of quality and relevant education (Wanzala, 2013). Wanzala reiterates that the research dimension presents a concern, especially in developing countries, and the graduation of more students with doctoral qualifications is critical if the economic needs of the country have to be met. Kenyan universities present a low graduate supply i.e., a total of 1,203 doctoral degrees in four years; 2012-2015, an average of 300 per year CUE (2016) as compared to South Africa which graduated 1,878 (in 2012), 2,051 (in 2013) and, 2,258 (in 2014) doctoral degrees respectively (Breier & Her-man, 2017; Cloete, Mouton, & Sheppard, 2015). This phenomenon of low completion rate in Kenyan doctoral studies is brought about by challenges that include; "*insufficient funding, diversity of programmes, inadequate infrastructure and inadequately qualified staff" (*Barasa & Omulando, 2018, P.4). Against this backdrop, the statistics and the requirement of the Commission for University Education that by the year 2019 all university academic staff should have PhD qualification CUE (2014) indicates that

there is a mismatch of the economy's demand and supply of doctoral degree holders which poses a great challenge to planning and policy making in the Kenyan university sub-sector. As a response to this, countries are now focusing their interest on producing more researchers to increase the quality of human capital by embracing the enrollment of more students in doctoral projects (Meerah 2010).

Kenya has set its national benchmark for doctoral study completion rate at 20% within the stipulated time of three years; however, the national average from the higher education institutions is currently at 11% with an average time to completion of six years (Matheka et al.2020). The low completion rate is considered a threat to doctoral training in Kenya (Matheka et al.2020; Barasa & Omulando, 2018). It is therefore factual that Kenya has low doctoral degree output as compared to the United States of America and Canada, with reported average PhD completion rates of 56.6% (in 10 years) and 70.6 % (in nine years), respectively (Sowell et al. 2008; Tamburri, 2013). Consequently, there is an urgent need to find ways of reconciling pressures for mass enrolment of postgraduate students into Kenyan public universities with low completion rates and selective development of academic quality training and research.

Research on factors influencing doctoral studies completion in the Western world exists (Matheka et al. 2020). Studies reveal that the quality of education, training and learning a student interacts with and timely completion of doctoral studies is a result of diverse factors such as; efficacy of lecturers, availability of training facilities, state of students, teaching methodologies, knowledge content, learning environment and outcomes that include knowledge, skills and attitudes (UNICEF, 2000; Wilson, 2009). Barnes &Austin (2009) assert that a supervisor plays a key role in the entire doctoral research

process by providing professional development of doctoral students and promoting effective learning, and as such, influences the timely completion of doctoral studies.

Chacha (2004) highlights challenges experienced by higher education in Kenya as: insufficient research and publication, ineffectual management and leadership, inadequate funding and capacity building, poor remuneration of staff, low ICT capacity and its utilization, poor quality and standards, defective student welfare, biased gender and equity, and slow internationalization of education and access. Ineffective teaching approaches used by some academic staff in resource-limited settings are another identified factor that compromises the duration to completion as well as the quality and progress of doctoral dissertations (Wanzala, 2013). Barasa & Omulando (2018) cite students' personal life and work, circumstances and funding constraints i.e., doctoral students engage in other activities such as part-time teaching, other employment and family commitments and delayed feedback on their work affects doctoral study completion.

Literature reveals that a number of inquiries focusing on doctoral studies success factors, causes and effects of high attrition rates of postgraduate students in developed and developing nations have been done (Ali et al. 2016; Matheka et al. 2020; O'Meara et al. 2017). Although graduate education systems, students' and supervisors' contexts may differ greatly between regions and even countries, acquiring a doctoral degree is still a daunting task for many students (Matheka et al. 2020). Many students take a considerably longer period to complete their theses or fail to complete them at all (Mugendi & Githae, 2021). Determinants of completion of education doctoral dissertation within the stipulated timelines form the basis of the current study. Barasa & Omulando (2018) points that in Kenya, most doctoral students do not keep in touch

after completing coursework and are not able to carry out research within the university stipulated timelines, delay in completion and even others dropping out of their studies completely is a common experience in Kenyan universities; these is detrimental to the country and higher institutions' economy and reputation.

Consequently, determinants of low education doctoral outputs, students' and supervisors' perceptions of experiences encountered during education doctoral dissertation journey in Kenyan public universities have not been fully explained. The current study therefore seeks to establish experiences of education doctoral students, supervisors and education administrators on determinants of completion of education doctoral dissertation.

1.4 Statement of the Problem

Expansion and improvement of education in Kenya is the objective of both the government and the society, 30% of Kenya's annual budget is directed to education with a larger portion of it used to fund higher education and teacher training (Mukhwana et al. 2016). Universities are therefore expected to produce skilled and educated work force that is well-informed, practical, and holistic with skills and expertise through completion of degree programs among them education doctoral studies. Doctoral students are potential resource persons capable of advancing knowledge, postgraduate qualification is a valuable means through which institutions can sturdily harness competitive innovation and creativity that leads to increased skilled manpower and high-quality productivity of goods and services (Kibalirwandi et al., 2023).

The government envisages the contemporary Kenyan university to be at the cutting edge of research and knowledge to enable the country respond to its developmental

challenges. Although the benefits of a doctoral degree to both an individual and the society at large have been seen, low rates of completion have continued to be a problem across doctoral programs worldwide. Currently, there is a global concern in the higher education arena on the duration taken to complete a doctoral degree (McBrayer et al. 2018). Studies have shown that of the few doctoral students who reach the finish line, the majority do so in substantially more time than initially planned. In the Netherlands, for example, only 10% manage to finish in the commonly prescribed four years and the average completion time is five years, only 41% of students enrolled in doctoral programs in the United States successfully complete their degrees within a period of 7 years and only 57% complete their degrees within a 10-year time-frame (Van de Schoot et al. 2013; CGS, 2008).

The 2017 National Science Foundation (NSF) Survey of Earned Doctorates, an annual report of research doctorate recipients from accredited United States institutions, revealed that national averages showed the following median years to doctorate completion by discipline type: Engineering, 5.3 years, physical and life sciences, 5.7 years, psychology and social sciences, 6.0 years, humanities and arts 7.0 years, and education 6.0 years. While an estimate of 20% of all graduate students pursue doctoral studies, 70% of these doctoral students do not persist to graduation (Berman & Ames, 2015). There is a 50% attrition rate for education majors with 20-30% opting out at the dissertation stage.

In Kenya, there is a low output in doctoral degrees that results from many doctoral students taking a considerably longer period of time to complete their theses and others abandoning them completely. Doctoral degree completion rate in Kenyan universities is estimated at 11% national average within six years (Barasa & Omulando, 2018) and

approximately 20% of doctoral candidates drop out after completion of coursework, with only the dissertation remaining. This low output in doctoral degrees causes a shortage of: qualified staff, expertise and qualified human resource leading to a compromise on the achievement of economic development in various sectors. Commission for University Education (2018) acknowledged the inadequacy of staff with doctoral qualifications in Kenyan universities implying that Kenya's demand for doctoral degrees do not match its output calling for the need for Kenyan public universities to link academic research activities and doctoral training to the National Agenda; Community Development, Vision 2030, Sustainable Development Goals and Millennium Development Goals.

Doctoral studies come as a great expense and investment to the students, institutions and society at large. When the duration to attain a doctorate is prolonged, students' potential contributions, career goals, and plans are greatly diminished, opportunities to obtain gainful employment, prosperity, and social mobility are reduced, and there is a loss of revenue to the university. Increasing success in completion of doctoral studies requires developing holistic approaches that create opportunities for growth of doctoral students who are in the challenging dissertation stage (Ames et. al, 2018) and thus there is need to establish determinants of dissertation completion. These determinants may vary across countries, institutions and even faculties; research in this area is scant and as such there is a gap in the literature and need for further research to combat the low completion rates of education doctoral studies. This concurrent mixed method study therefore aims to investigate determinants of dissertation completion of education doctoral studies in selected public universities in Kenya.

1.5 Purpose of the study

The purpose of this study was to investigate determinants of dissertation completion of education doctoral studies in selected Kenyan public universities.

1.6 Objectives of the study

The objectives of this study were to achieve the following;

(i) To assess the preparedness of doctoral education students for the completion of the doctoral dissertation

(ii) To explore accessibility and use of learning resources by doctoral education students for the completion of the doctoral dissertation

(iii) To examine perceptions of education administrators (Heads of Departments and Post-graduate Deans) on completion of doctoral dissertation

(iv) To explore supervision experiences of doctoral education students and supervisors on completion of doctoral dissertation

1.7 Research Questions

The research questions of the study were:

(i) To what extent are doctoral education students prepared for completion of their doctoral dissertation?

(ii) What is the level of accessibility and use of learning resources by doctoral education students for completion of doctoral dissertation?

(iii) What are the perceptions of doctoral education administrators (Heads of Departments and Post-graduate Deans) on completion of doctoral dissertation?

(iv) What are the experiences of doctoral education students and supervisors on completion of doctoral dissertation?

1.8 Justification of the study

Attainment of the Kenyan National Agenda; Community Development, Vision 2030, Sustainable and Millennium Development Goals is closely linked to academic research activities and doctoral training (McCowan, 2018). Productivity in research, therefore, forms the basis for the achievement of national development goals; non-completion or delay in doctoral degree completion is a concern due to its detrimental economic, social, and personal consequences. The delay in completion of doctoral studies leads to slow supply of skilled and expertise manpower in research activities expected to transform the nation into an industrialized economy, this in turn derail the attainment of the Kenyan national agenda. Considering the evidence of delay and low completion rates of below 50% in education doctoral studies in Kenyan public higher institutions Nafukho et al. (2019), this study can be said to be justified. This implies that despite the increased enrolment of students in doctoral programmes, there is still low doctoral degree output, and this justifies the necessity to investigate the determinants of dissertation completion. This inquiry therefore was set to provide an insight into issues surrounding time to doctoral degree completion and its recommendations may advice students and faculty on approaches to timely manoeuvre through the doctoral dissertation stage to completion.

1.9 Significance of the study

Justification of a study according to Mugenda & Mugenda (2003) highlights the importance and reasons for conducting an investigation. The significance of this study is pegged on the stakeholders' concern on low completion rates of doctoral studies in Kenyan public universities. The findings of this study will highlight the extent to which education doctoral students are prepared for completion of their dissertation; the findings will establish the expectations and extent to which education doctoral students

are prepared in terms of motivation, commitment, psychosocial support, financial and even the pre-requisite research skills required for undertaking doctoral research activities. The study findings will advise the institutional management on the students' intellectual, psychosocial and financial preparedness for completion for proper advice and support to enhance high rates of dissertation completion.

The study outcomes also reveal doctoral students' level of access and use of learning resources that promote doctoral research and enhance completion rates of doctoral studies. This will acquaint the university management on accessibility and use of infrastructural resources by doctoral students for research and completion of doctoral dissertation consequently, advice on prioritization of infrastructural establishment.

The findings of this study will also inform on perceptions of management in charge of education doctoral studies on implementation of policies, rules and regulations governing doctoral studies, evaluation and implications on dissertation completion. The study conclusions will also inform the university management on strategies of policy implementation. The findings of the study could also contribute to a better understanding of students', supervisors' and education administrators' perceptions on doctoral students' dissertation terrain. The study findings will be significant in informing development of intervention measures focusing on high completion rates of education doctoral dissertation.

In addition, the findings will benefit the university departmental construction of checks and balances that could improve student-supervisor relationship, doctoral students' support by faculty and the flow of communication and feedback between the doctoral students, supervisors, and faculty. It will also reveal student supervisory strategies that yields timely and quality academic research based on the needs of the society.

1.10 Assumptions of the study

According to Adit (2021), an assumption is an important fact presumed to be true but not actually verified.

This study assumed that:

i) Administrators fully implement policies and regulations governing post graduate studies and have a better understanding of what it takes for a doctoral student to complete a doctorate
ii) The respondents cooperate during data collection and that their responses were honest
iii) The study findings will be made use of by universities and other relevant institutions to improve completion rates of doctoral studies

1.11 Scope of the study

Scope of a study provides for the boundary or the research limits in terms of content, methodology, geographical area and time span for the research (Adit, 2021). This study on determinants of dissertation completion of education doctoral studies was conducted in selected public universities in Kenya which offered bachelor of education in the four departments namely: Educational Foundation, Educational Psychology, Curriculum Instruction and Educational media and Administration Planning and Management. The researcher being an educationist and having interest in contributing to educational development through research prompted the situation of the study in the field of education. The target populations were 2016-2018 cohorts of doctoral students who were at the stage of collecting data and writing dissertation at the time of data collection of the current study. The study was narrowed to involve doctoral students at the stage of dissertation writing and did not include those on coursework stage. From the

reviewed literature most delays in completion of doctoral studies arise at the stage of thesis writing and thus appropriate stage to investigate determinants of doctoral study completion. The Education post-graduate Deans and the Chairs of Departments also referred to as Heads of Departments of; Educational Psychology, Curriculum Instruction and Educational Media, Educational Foundation and Administration Planning and Management of the participating public universities also participated in the study. The Deans and CoDs were deemed appropriate participants because they are involved in the day-to-day implementation of doctoral study policies, rules, and regulations, and are responsible for running postgraduate activities. The study employed a mixed methods approach in order to get a multidimensional understanding of determinants of completion of doctoral studies in education and the research instruments used were questionnaires, focus group discussions (FGDs), and individual interview schedules. The scope of the study was also centred on the study objectives: to assess the preparedness of doctoral education students for the completion of the doctoral dissertation, to explore accessibility and use of learning resources by doctoral education students for the completion of the doctoral dissertation, to examine perceptions of education administrators on completion of doctoral dissertation and to explore supervision experiences of doctoral education students and supervisors on completion of doctoral dissertation.

1.12 Limitations of the study

A limitation is some study aspect that the researcher is aware that may negatively affect the results or generalizability of the findings but over which the researcher has no control (Muhammad, 2016). Study limitations may arise as a result of methodological shortcomings i.e., relating to the size of the sample, accuracy of data gathering instruments and adequacy of prior studies in the research area or due to researchers'

personal biasness, time constraints and limited access to data (Mugenda & Mugenda, 2003; Coker, (2022).

The limitations of this study included the following:

(i) The study was carried out in only public universities in Kenya and limited to only education doctoral students at the phase of data collection and thesis writing. Since public universities in Kenya have been long established as compared to private universities and is believed to have higher capacities in doctoral studies than other universities. The study findings may not be suitable for overall generalization but can be applied selectively for universities with similar characteristics.

(ii) The study respondents were doctoral students, supervisors and education administrators (Chairs of Departments and Deans) in charge of education doctoral studies. Education is known to produce expertise that can fit in different sectors of the economy. Whereas other academic faculties may yield similar findings, the results of this study may apply to the education faculty and thus similar studies can be replicated with master's students, undergraduate or in the set-up of different departments and schools.

(iii) Some sampled study participants were in different geographical locations where it was a challenge to physically reach them during data collection; however, the email was used to deliver the study questionnaires and responses were received. virtual interviews and focus group discussions were conducted via zoom app where it was convenient to respondents. Although the virtual space limited non-verbal cues, the researcher prompted the respondents in order to get a clear understanding of their views on the research issues.

1.13 Theoretical Framework

Two theories were employed as theoretical framework for this study. First, it drew from Tinto's (1993) doctoral persistence theory which was utilised to explain determinants of doctoral students' degree completion. Tinto's (1993) doctoral persistence theory is derived from Tinto's (1975) Interactionist Model which emphasized on the interaction within the academic environment to explain dropouts of undergraduate students. Tinto's (1975) theory of social and academic integration, recognized the critical need for college students to connect to the various social and academic components of an institution in order to persist to completion. Tinto's Student Integration Model (SIM) served as a launching point and seminal theory for research in academic persistence. More recent researchers who specifically examined persistence at the doctoral level have acknowledged the unique nature of doctoral student experiences, Tinto (1993) as cited by Tinto (1975) noted the differences between undergraduate students and doctoral students, which include the intensity of academic and social integration as well as a sense of belonging to departments/institutions and fields of study. In order to understand doctoral student persistence, Tinto conceptualized a theoretical model with three stages; transitional phase, leading to candidacy, and dissertation (Tinto, 1997). Pifer and Baker (2016) described the more typical doctoral student challenges: "The task of balancing personal and familial roles and responsibilities during the doctoral journey presents challenges across the stages. . .[as] 43% of students who leave graduate programs do so for personal or family-related reasons" (p. 23). According to Tinto (1997), doctoral students might encounter challenges in each of these phases, but persistence throughout the phases can lead to the achievement of their professional careers. The perspective of the students shows that there is more interest in persistence to degree completion than college retention (Tinto, 2017). Additionally, doctoral

students' relationship with lecturers and peers is imperative in attaining their professional careers and directly facilitates the academic and social integration of doctoral students (Berger, & Braxton, 1998). There is a need for a shift in university focus on student retention to influencing student motivation to stay and persist to completion of their tertiary degrees (Tinto, 2017).

Second was a graduate socialization framework conceptualised by Weidman et al. (2001) that highlighted relationships with individuals who support doctoral students for their completions. Even though the relationship with faculty or advisors is fundamental with respect to completion of a doctoral degree, personal communities such as family, friends, and employers, who may not necessarily be associated with academic programs but have an influence on the graduate completion, are also included within the framework (Weidman et al., 2001). The socialization process that graduate students undergo involves four dynamic, nonlinear, and ongoing stages that include: anticipatory, formal, informal, and personal stages (Weidman et al., 2001).

The framework points that socialization in graduate school is the process of gaining knowledge, skills and values essential for successful entry into the career demanding a higher level of specialised knowledge drawing from adult socialization, role acquisition and career development. The four stages reflect varied levels of understanding and commitment to professional roles for which graduate candidates are being prepared. In each stage there is acquisition of advanced knowledge, participation in academic program such as mentorship and supervision as a result of engagement through the main elements of socialization.

According to Weidman et al. (2001) anticipatory stage entails graduate students learning general roles and development of particular interest, in the formal stage,

students begin to acquire competencies, have clear dimensions, interact and compare with peers and seek certification. At the informal stage, graduates attain status with peers or with other groups. Personal stage marks a level in which graduates' have a high sense of obligation to meet their expectations, personal and professional role needs are congruent and candidates are highly prepared for achievements such as examinations and oral defenses of work.

The theoretical model for doctoral student persistence provides a basic framework for understanding various factors that might influence the persistence and attrition of doctoral students. Tinto's (1993) doctoral theory of persistence was used to explain the interaction between doctoral students at the dissertation stage of doctoral program and the social and academic components of their institutions, whereas Weidman et al.'s (2001) graduate socialization framework was used to highlight dynamic socialization processes of doctoral students intertwined with various components, including relationships within both professional communities and personal communities. Based on these theories, this study explored determinants of education doctoral degree completion in selected Kenyan public universities focusing on student preparedness for completion, student access and use of learning resources and perception of education administrators on completion of a doctorate degree. It also focusses on experiences of doctoral students and supervisors with the purpose of understanding how they relate to dissertation completion.

1.14 Conceptual Framework

A conceptual framework is a synthesis of interrelated components and variables which help to explain phenomena; it serves as a "map" that guides a researcher towards realizing study's objectives or intent (Tamene, 2016). Conceptual framework is the

understanding of the researcher on how particular study variables connect; thus, it identifies the variables required in the research investigation (Regoniel, 2020). Conceptual framework serves as a tool in analysing the state of variables or concepts and their interactions for a comprehensive understanding of a phenomenon, it is a map of a researcher basically aiding his/her thinking when pursuing an investigation and dealing with data (Chalawila, & Muchanga, (2022).

A description of a conceptual framework contributes to research by identifying research variables and clarifying relationships among the study variables, it also *"sets the stage"* for presentation of the specific research question that drives an investigation (Chukwuere, 2021). This study used the conceptual framework to relate the relationship between the studies' independent variables; student preparedness, students' access and use to learning resources, perceptions of education administrators and experiences of students and supervisors during doctoral dissertation writing and supervision to the dependent variable which is completion of education doctoral dissertation. The moderating variables included in the study were: health factors, mode of study, scholarship, gender and structure of Programme

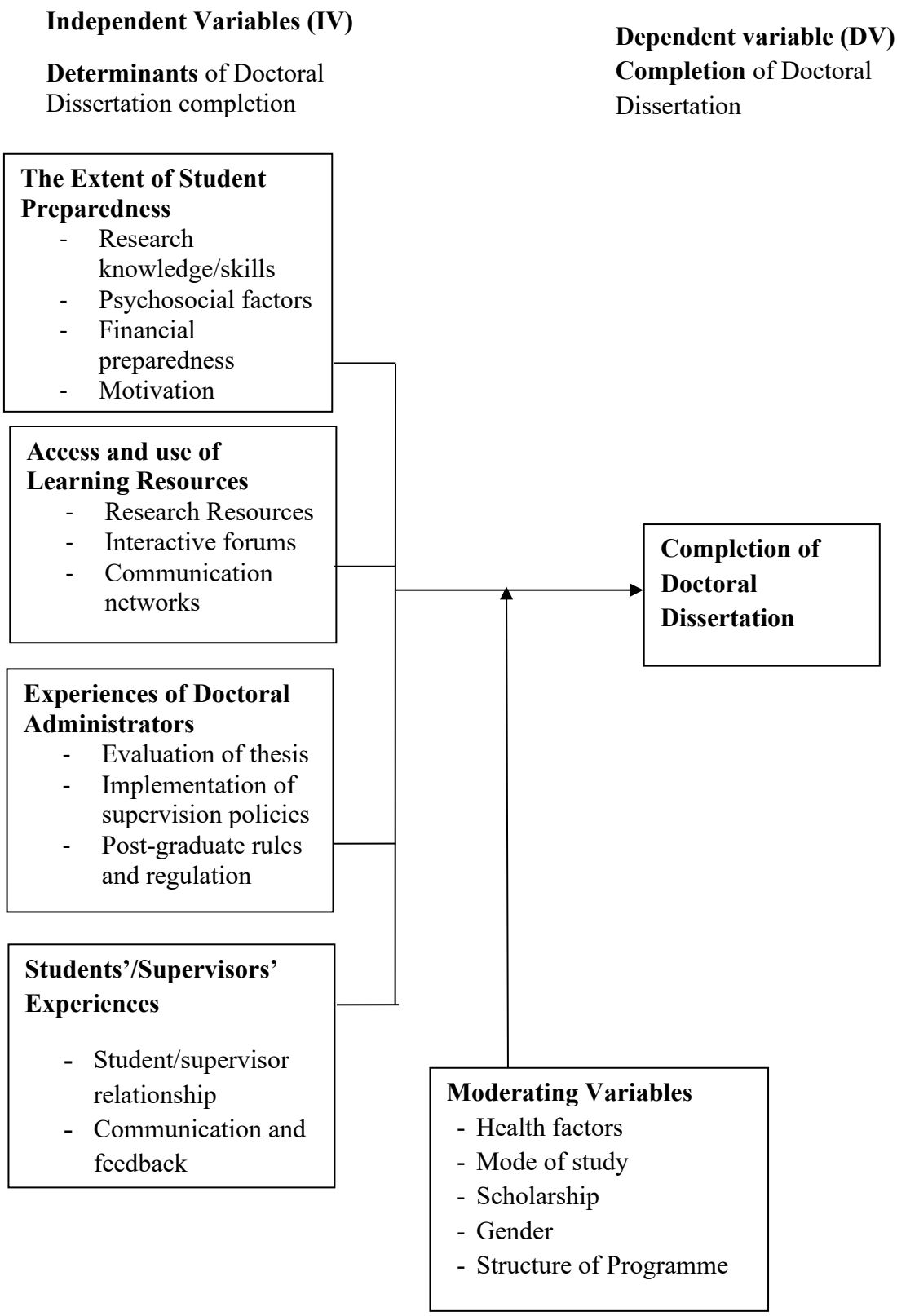

Figure 1.1 Conceptual Framework

Source: Researcher 2022

1.15 Operational Definition of Terms

Academic research refers to an investigation into a problem with an intention of identifying facts that will aid in bringing an understanding and solution to the problem.

Access to learning resources refers to the ease at which students can reach and efficiently use doctoral study learning facilities and services.

Attrition rate refers to the rate at which students in a specific study cohort enrolled in a study programme withdraw from the education process and are unable to complete the studies.

Chair of departments/ Head of department refers to a university administrator in charge of all academic activities of the study field

Dean refers to a university administrator in charge of all post graduate academic activities

Doctoral study refers to University education programme focused on research for which a doctoral degree is awarded to a student on successful completion by the University.

Massification of higher education refers to an increased enrolment of students in higher education institutions as a result of widening access

Public university refers to a university that is established and maintained using public funds

Supervisor refers to a faculty lecturer appointed by the University to guide and mentor a PhD student during doctoral study research.

Time-to-completion refers to the duration taken by student(s) to attain a doctoral degree since enrolment and including periods of breaks

1.16 Chapter Summary

This chapter provides a broad overview of the inquiry; it highlights the general introduction, the problem statement, the purpose of the study, research objectives and questions. It also outlines the study significance and assumptions, scope and limitations, theoretical and conceptual framework, operational definition of terms and chapter summary. The chapter that follows provides a literature review on aspects related to the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature related to determinants of dissertation completion from past research. It is organized as follows; Traversing the doctoral dissertation stage, doctoral student preparedness for dissertation completion, access and use of learning resources in completion of doctoral dissertation, perceptions of doctoral academic administrators in completion of doctoral dissertation and supervision experiences on completion of doctoral dissertation.

2.2 Traversing the Doctoral Dissertation Stage

Dropout or delay in completion of doctorate studies poses a challenge to doctorate students and universities both competitively and financially as a large portion of university research output rest on PhD students (Horta et al., 2018). The delay is even more problematic for PhD candidates who are on employment contracts or scholarships that end after a specified duration of study regardless of whether or not the dissertation has been completed (Rooij, 2019). The working environment of doctoral students is unstructured such that it requires a great deal of autonomy and independence unlike in previous learning; such an environment may be disorienting to some students and thus Gardner (2008) argues that lack of socialization in doctoral programs increases attrition risk among doctoral students.

Studies have estimated that nearly 50% of enrolled doctoral students fail to attain their degree D'Andrea, 2002; Johnson et al., (2000), a challenge that has called for the necessity of universities' efforts to push doctoral students to the study finish line. However, not sufficient if it produces scholars who are not sufficiently grounded in

content and research in the field. In addition to providing resources and mechanisms for reducing attrition rates and increasing chances of program completion, successful doctoral programs have a responsibility to incorporate program mentorship and student research engagements in order to produce effective researchers in the field (Bagaka's, Badillo, Bransteter, & Rispinto, 2015). Doctoral students work in unstructured environment that requires a great deal of autonomy and independence unlike in prior learning (Bagaka's et al., 2015), such environment may be disorienting to some students Gardner (2008) affirm arguing that lack of socialization in doctoral programs increases attrition risk among doctoral students. Overdependence of doctoral students on their supervisors have been cited as a cause of delay in study completion, according to research findings of Levecqueet. al. (2017) and Ali et.al. (2016) the extent to which PhD students are autonomous in designing and executing their research is closely linked to their success and satisfaction.

Each doctoral candidate has a unique attitude, ability and consequently, management of their study program Grover (2007), he asserts that while there might be program guidelines and minimum course requirements the whole process of developing a market-competitive doctoral candidate is highly individualized for every student. Writing of doctoral dissertation requires competencies such as efficient absorption of knowledge, integration, well-organized tool deployment and ultimately, creation of quality knowledge output therefore**,** doctoral students need to express a minimum threshold of motivation and competence for success (Grover,2007).

2.3 Doctoral students' preparedness for the completion of the dissertation

Globally, many education stakeholders that include governments, higher education institutions, students and funders of postgraduate studies have raised concerns on the

duration taken to complete post graduate studies with more emphasis on doctorate degrees (Noel et al., 2021; Rong'uno, 2016). According to Mukhwana et al. (2016) doctoral studies scheduled to take only three years in Kenyan universities take much longer with majority of doctoral students taking at least six years posing a continuous challenge to public universities in Kenya. Most students begin doctoral programs with an intention of persisting and continuing to completion of the degree however, approximately half of the students who begin the program fail to complete their degree equalling to a great loss of students annually and throughout the degree process across all disciplines (Tinto, 2012). Lovitts (2009) has revealed that doctoral students have inadequate preparation for a transition from students to independent scholars. Ali & Kohun (2006) and Gardner (2009b) note that majority of the students who enrol for doctoral programs possess the academic ability to complete their studies, but systemic issues at faculty may exacerbate attrition and mental distress among graduate students (Peterson, 2016).

Herman (2011) and Kyvik & Olsen (2014) however cite lack of candidates' ability or skills as a critical reason for candidates' failure to complete their doctoral degree and points that prior academic preparation is a major factor in doctoral persistence (Ampaw & Jaeger, 2012). In congruence with Ampaw and Jaeger, McConnell (2015) asserts that in some cases, programs often enrol students who do not demonstrate capabilities of success in a doctoral program but are pressured to meet the university's objectives of increasing enrolment. Several research have shown that lack of preparedness for the work of the dissertation, unclear expectations and feelings of isolation amongst doctoral students are some of the hindrances cited to negatively impact time to doctoral degree completion (Lake et al. 2018; Malone et al. 2001).

Improving and advancing quality in postgraduate research and training remains a global objective to all higher education institutions today (Maslen, 2010). Maslen reiterates that quality postgraduate training programs are seedbeds for future knowledge cultivators, policy shapers, and academics. Mulinge & Arasa (2013) assert that a clear policy on effective teaching and postgraduate supervision is vital to the quality of postgraduate studies, research, and its timely completion. According to Cutri, Freya, Karlina, et al. (2021) developing doctorate candidates' academic integrity involves integration of explicit instructions on academic integrity in teaching and learning as well as in practice, supporting student academic literacy development, and transforming supervisory practices.

Skakni (2018b) established that high quality supervision of PhD students enhances satisfaction and timely study completion. Effective post graduate supervision process according to Leder, (2005); Zuber-Skerrit & Roche, (2004) is central to research quality and successful completion and thus should entail monitoring the student's progress; advising the student; establishing and maintaining frequent contact with students; providing timely, constructive and effective response to the student; ensuring that the student adheres to ethical standards and academic practices; and ensuring that the student is prepared to adhere to the institution's program codes and policies on quality and standards (Leder, 2005; Zuber-Skerrit and Roche, 2004). For Jacobi (1991), supervision takes a mentoring role; facilitating access to resources and opportunities; providing information, protection and sponsorship; stimulating the acquisition of knowledge; and the supervisor serves as a role model.

Research supervision in the views of Pearson & Kayrooz (2004) is a facilitative process that calls for support and challenge. The two primary goals of supervision are

developing research students to become independent and capable researchers (Down, Martin, & Bricknell, 2000) and the achievement of quality completion (Zhao, 2003). According to Rooij et al. (2019), a good student/supervisor relationship and a close link is associated with study satisfaction and less quitting intentions. It is therefore important to have a good match between the student and supervisor, both academically and personally (Van Rooij, Fokkens-Bruinsma, & Jansen, 2021); Woolderink et al. 2015). Amutabi (2018) therefore, emphasizes on the importance of having a democratic process of selection of supervisors in Kenyan graduate schools in which students are involved rather than imposing on them supervisors whom they are not comfortable with.

An exploratory study on the views of students and supervisors on post graduate supervision indicated that a supervisor is expected to have interest in the student's research, avail timely and constructive feedback, encourage students to be focused, understand their shortcomings and work independently to manage their research in a timely manner as well as present their work whenever opportunities arise (Ali et al., 2016; Abiddin, 2007a; Abiddin & West, 2007b; Sambrook et al., 2008). PhD supervisors should have the leadership abilities to provide appropriate direction for the student, help doctoral students to develop appropriate networks in their field, appropriate completion and safe keeping of supervision record to enable documentation of the progress of a student in the PhD program and to keep an audit trail of the decisions reached during supervision meetings (Ali et al., 2016). Ali, Watson, and Dhingra assert that students' and supervisors' personalities, knowledge, skills, communication, and coaching overlap as critical factors to the success of doctoral studies. Literature has demonstrated that a successful process of supervision depends on doctoral students' ability to demonstrate maturity in their thinking, outstanding communication skills,

both written and verbal, well-developed emotional intelligence, and high-level resilience (Casey et al., 2023). The provision of appropriate support and capacity building and training opportunities to supervisors through a structured and formal training may also impact on supervisors' ability to support PhD students appropriately and thus encouraged in most universities (Halse, 2011; Halse & Malfroy, 2010).

2.3.1 Socialization and Psychosocial Well-being of Doctoral Candidates

Social and intellectual isolation has been identified as one of the main factors associated with doctoral attrition and time to doctoral degree completion (Jairam & Kahl, 2012). Stubb et al. (2011) note that it is not unusual for a doctoral program to last several years before completion and that a mismatch between a doctoral student and the environment leads to negative experiences of stress, doubt, and exhaustion. Stallone (2011) also emphasized the importance of Student–cohort relationships to be a significant factor in attrition levels. Holmes et al. (2014) suggested that doctoral students need opportunities that reduce social isolation and allow sharing and learning from each other such as team building.

External support systems are vital in meeting the challenges of doctoral programs Byers et al. (2014), PhD students benefit from coping strategies that include; support by cohort members and family, friends, and other PhD students. The scholarly community plays an important role in the socio-psychological well-being of a doctoral student and thus if PhD programmes have to be effective, there should be improvement in doctoral student support, increased understanding of doctoral students' socialization and incorporation of enabling environment, positive social experiences and structures for doctoral candidates (Gardner, 2010; Jairam & Kahl, 2012; Stubb, Pyhalto, &Lonka, 2011).

2.3.2 Student motivation to pursue doctoral studies

Doctoral education has a common point with many adult education theories whose principles are that learners are independent, self-motivated, self-managed, autonomous, and intrinsically motivated (Choi, 2019). Individual doctoral students in various fields of study have different experiences i.e., those from science fields are very different from those in humanities fields; norms and socialization of disciplines vary and have a strong impact on the progress of the students in that field (Maddox, 2017). Nearly half of PhD students experience psychological distress, and some level of depression in the course of their doctoral study causing some students to abandon the program without a degree and others to take a longer time to complete (Panger, Tryon, & Smith, 2014; Levecque, Anseel, De Beuckelaer, Van der Heyden, & Gisle, 2017). Candidates with psychological skills, motivation, prior academic preparation, program preparation, and demographics are more likely to persist to degree completion than those without these skills (Bitzer, 2011; Mason, 2012; Brill et al., 2014; Stock & Siegfried, 2014). Mason (2012) in his research found that the satisfaction of doctoral candidates was strongly correlated with motivation, amount of time students spent on task (Gardner, 2010; Moxham et al., 2013), students' ability to work independently (Bitzer, 2011; Mason, 2012; Litalien & Guay, 2015; O'Meara et al., 2013; Stock & Siegfried, 2014), and placing doctorate as a priority (Santicola, 2013).

Successful completion of doctoral research and performance is also influenced by students' personal characteristics such as their competencies in learning skills, as well as their motivation towards accomplishments and completion of the research project (Hadi, N. U., & Muhammad, 2019). Weimer (2009) proposed that student-centered pedagogy entails students' active involvement of knowledge, sense of ownership of knowledge, capability of self-evaluation, and the role of the teacher as side-stepper.

Students' thoughts and intensity of beliefs in the established goals regarding the learning process is critical to study completion (Dinther, Dochy, & Segers, 2011; McKenzie & Schweitzer, 2010). According to Rockin-son-Szapkiw, Spaulding, Swezey, & Wicks (2014), student resilience, their capacity to manage one's psychosocial well-being and copying skills, thinking or learning styles influenced a candidates' ability to persist.

Doctoral students with low self-efficacy have a tendency to consider responsibilities as complicated than they actually are; on the contrary, a student with a higher degree of self-efficacy is associated with resilience, commitment and a sense of calm that accelerate completion of study tasks. A sense of belonging in higher education has been found to be closely related to key educational outcomes such as; self-efficacy, academic self-concept, intrinsic motivation, persistence and academic success (Freeman, Anderson, & Jensen, 2007; Hausmann, Schofield, & Woods, 2007; Ostrove, Stewart, & Curtin, 2011; Strayhorn, 2012).

Offerman (2011) noted that the reasons that compel a candidate to pursue a doctoral degree are also significant factors to persistence and completion, and research has established that the most effective reasons were; desire for development self-improvement, learning, better employment opportunities, improved quality of life, and achievement (Bain et al., 2011; Holly & Gardner, 2012; Bégin& Gérard, 2013).

2.3.3 Doctoral students' mentorship

Mentoring is a significant aspect of doctoral education, the connection between a doctoral candidate and their mentors is critical in the process of supervision and socialization as it facilitates the student's degree completion along with professional and personal development (Johnson, 2008). The journey of a doctoral study is winding

and students need mentors who demonstrate personal and professional qualities in the mentor relationship. They seek relatable mentors who value them and offer guidance and feedback through autonomous learning, and is devoted to the development of students into professionals.

The core mission of higher education is to offer service to human person and society in various ways that include: teaching and training, research and inquiry as well as building and supporting collaborations and partnership among them effective engagement with the institutions' alumni for mentorship of post graduate students (Obeng-Ofori, & Kwarteng, 2021). Alumni Associations create collaborations between alumni and community of people with shared unique experiences, engagements that foster unity of purpose and improve the intellectual and social experiences of students in the institution (Kumar, 2008). Kumar asserts that alumni serve as effective role models and inspiration to students at all levels, they can share valuable personal experiences with students on various aspects of social and academic life, which include: financial and time management, character formation and self-discipline, career choices and soft skills. The student-alumni interactions inspire self-confidence, self-esteem, enhance student motivation, and inculcate the right mindset towards study completion (Chase, 2019).

Alumni are also vital for fund mobilization and placement opportunities for students Drezner, & Pizmony-Levy, (2020) it can also promote research through facilitation of university entry into local and international networks, collaborations and partnerships for mutual benefits (Veluvali, & Surisetti, 2023). According to Veluvali, & Surisetti, (2023) it also shapes academic and professional life of students by facilitating useful forums for the students to share knowledge and experiences and enlighten them on new

trends locally and globally in their society and respective fields. Alumni engagements also contributes to the quality of students' learning experience and academic success, reduces dropout rates, and enhances the students' life diversity (Obeng-Ofori, & Kwarteng, 2021). Engaging doctoral students in research activities that include publishing manuscripts, is also critical to research knowledge and productivity and development of research self-efficacy (Lambie, Hayes, Griffith, Limberg, & Mullen (2014). Research findings have revealed that student engagement in academic and education activities have significant impact on the persistence of students and quality of grades achieved (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008).

2.3.4 Economic benefits and demand versus completion rates of doctoral degrees

The society benefits immensely from the PhDs awarded across all education sectors; it enhances professional and personal lives of executive leaders across governmental, academic, institutional, employer, and employee perspectives (National Science Foundation, 2009). The returns of investing on a doctoral education to an individual candidate can be significant for career advancement, leadership development, career change, and life quality indications as a result of attainment of the doctoral degree (Brill, Balcanoff, Land, Gogarty, & Turner, 2014). Individual holders of a doctorate degree hold the lowest unemployment rate of 1.9% and the highest median weekly income of all degree levels (Bureau of Labor Statistics, 2010). However, funding is an issue considered to have a robust effect on doctoral study completion, a study by research has revealed that doctoral students with scholarship awards and research funding have higher completion rates than students who are on self-sponsored programmes (Ampaw & Jaeger, 2012).

The government of Kenya views research and development as core activities of universities central to post-graduate training which are basic means of generating wealth and enhancing human development (Mukhwana et al. 2016). Research output therefore forms the basis for the achievement of national development goals. Kenya is currently facing a challenge of poverty and youth unemployment, this calls for university education reforms aimed at delivering accessible and equitable education as well as internationally competitive graduates and knowledge production through technological innovations (Muema & Lavery, 2018). The underlying assumption is that Kenyan public universities have the capability to provide adequate foundation for the complexities of the expected knowledge economy through postgraduate degree programmes in which research is central (Karitu & Kimani, 2022). The rate of growth in the higher education sector in Kenya is one of the fastest in Sub-Saharan Africa, with only one university in 1970, and 68 accredited universities by 2022; 35 public and 33 private universities (CUE, 2017). A rise in the number of students enrolling for PhD programmes is also evident. Studies have shown that there is a concern about the high level of non-completion, low completion rates, coupled with a long, tedious time for completion in many higher education institutions globally, including in Kenya (Itegi & Michubu, 2020). Rate of completion and attrition of a doctoral degree is an on-going debate in the higher education arena globally (Ames, Berman & Casteel, 2018). High dropout rates, delay, and dissatisfaction are common problems in doctoral education in most universities today (Rooij, Fokkens-Bruinsma & Jansen, 2019).

Doctoral studies completion rates vary between countries and institutions but also by discipline; research have shown that sciences, engineering and mathematics fields have the best completion rates UCOP (2014); CGS (2008) than the arts and humanities (Sheridan & Pyke, 1997; Wright & Cochrane, 2000). Jones (2013) asserts that the

doctoral journey is known to be challenging, he points that 33-70% of student who register for their PhD never finish with education majors estimated to have attrition rate of 50% and an additional 20-30% opting out at the dissertation stage (Berman & Ames, 2015). A seminal study by Shulman, Golde, Bueschel, and Garabedian (2006) concluded that the education doctorate does not "serve the needs of professional practice" even though the aim of the degree was to prepare effective educational leadership practitioners in schools as well as in institutions of higher learning (p. 29). One out of three of a sample of doctoral students on course at some point intended to drop out Castelló et al. (2017) and most of those who finish take more time than initially planned.

In the Netherlands, for example, only 10% manage to finish in the commonly prescribed four years and the average completion time is five years (Van de Schoot et al. 2013). In the year 2015, Kenyan doctoral students' proportion of graduates was recorded as 0.7% of the overall graduating students that year, which was an increase of 0.2% from the year 2012. The cause of the low completion rates at the post-graduate level is attributed to a number of factors, such as extended research timelines, few qualified academic staff to supervise post-graduate students, and overreliance on adjunct faculty (Mukhwana et al., 2016). High rates of doctoral dropout challenge universities both financially and competitively basically because a large share of the institutions' research output depends on PhD students Horta et al., (2018), public universities are therefore expected to meet the government's strategic plan budgets by graduating skilled and educated work force through degree programs (Roshan, & Motevaseli, 2018).

The failure of the doctoral students to complete their dissertations comes as a great expense not only to the student but also to the institution and the society at large, the doctoral students' potential contributions are also substantially diminished and this negatively impacts career goals and life plans (McBrayer, 2018). Cheruiyot et al. (2007) found that higher education institutions were losing a lot of revenue as a result of students failing to complete their degrees or taking more time to finish the degrees. According to Evans et al. (2018) and Levecqueet et al. (2017) ill mental health problems such as anxiety and depression among PhD students is related to being behind study schedule. Brill, et.al, (2014) attribute attrition of doctoral students and extension of study to student personal issues, the nature of the doctoral program, financial challenges, emotional stress, and work and family responsibilities (Brill, et.al, 2014). Since students invest in the pursuit of a doctorate degree, Lake et al. (2018) coin that there is a need to investigate factors leading to the success or hindrance of the doctoral degree with an aim of addressing them both from the faculty and student perspectives.

Mukhwana et al. (2016) point that the processing of doctoral students from the time of initial enrolment to graduation is too long and the quality of preparation and supervision is quite weak. Mukhwana et al. (2016) reiterate that as a result, the rate and the number of doctoral students being produced as a result are inadequate to meet national needs such as staffing the increased number of universities, replacing an ageing faculty, and meeting the demand for professional cadres in government, private sector, international agencies and the Non-Governmental Organizations (NGO) community. As doctoral attrition rates maintain undesirable levels, PhD-granting institutions are confronted with the task of diagnosing factors contributing to attrition with an aim of coming up with corrective measures that will enable continuous improvements and demonstrate internal and external accountability (Bogle, 2010; Levitch & Shaw, 2014).

2.4 Access and use of learning resources in completion of doctoral dissertation

Kenya recognises education and training as critical to technological and innovation transformation towards achieving 'vision 2030', university education therefore advocates for a paradigm shift from knowledge reproduction to knowledge and skills production (Muema & Lavery, 2018). The remarkable growth rate of Kenya's higher education sector has been accompanied by various challenges that include funding, diversity of programmes, quality, inadequate facilities and equipment to meet the academic needs of rising student numbers, and inadequately qualified staff in most of the newly established universities which have initiated doctoral programmes yet facing constraints with qualified staff and facilities for doctoral training (Barasa & Omulando, 2018). Barasa and Omulando note that in the year 2018, over half of academic staff in public universities did not have PhDs, a situation that was more serious in the newly established public universities and in the private universities. This suggests that there is a need for more adequately qualified academic staff with experience to effectively accomplish the process of PhD training and research in Kenyan universities. Li (2018) notes that learning facilities and other resources necessary for doctoral academic research activities are critical for doctoral students' progress towards completion of studies. Availability of funding is a key factor in availing research resources for completion of doctoral studies Rigler et al. (2017); Maher et al. (2004), inadequate or unstable financial support to doctoral students may lead to stress and negatively affects students' degree progress however, a study by Matheka, Jansen & Hofman (2020) found no statistically significant differences in time to completion of funded and self-financing PhD students. Rigler et al. (2017) suggest that supervisors should be in a position to advice students on availability of social programs as well as financial grants in various faculties.

Hadi & Muhammad (2019) points out that adequate access to essential research equipment and funded research activities, conducive working space for doctoral research students, availability of computing resources, access to the internet, adequate library facilities and technical support are factors related to the success of doctoral studies. Hadi and Muhammad (2019) also identify effective training of students and advisors in research methodologies, availability of educative seminar programme for research students, and active involvement in a broader research culture as factors that affect doctoral students research progress and performance.

Mukhwana et al., (2016) points that universities should therefore make every effort to increase their research grant portfolios by attracting more funding from private and government sectors, development partners and international organizations; increased grants will support the production of new knowledge, meet part of recurrent expenditure, purchase of equipment, support development of staff and facilities. Despite scarce resources, university management is therefore tasked with the responsibility of providing a conducive working environment Mwirichia et al., (2017) and creating a well organised administrative support for both doctoral students and supervisors (Kessio, 2022).

2.4.1 Doctoral Students' Interaction, Networking and Collaboration

Research has revealed that aspects of doctoral students' academic integration such as; involvement in professional activities and opportunities, and collaboration with other students and researchers are related to PhD completion and progress (Bair & Haworth, 2004; Lovitts, 2001; Meeuwisse, Severiens, & Born 2010 and Golde, 2005). Students' professional interactions and networking with colleagues in graduate departments are positively connected to their success and have been found to shape graduate students'

experiences and career advancement (O'Meara et al., 2017; Jaeger et al., 2016; Lovitts, 2001). Studies have revealed that graduate students who experience positive mentoring relationships have shown improved levels of satisfaction with graduate school and are motivated to become professors; these students also exhibit higher levels of academic performance, critical thinking abilities, and academic skill development (Adams, 1992; Belcher, 1994; Hill, Castillo, Ngu, & Pepion, 1999; Kelly & Schweitzer, 1999; Tenenbaum, Crosby, & Gliner, 2001). There is a need therefore for higher institutions to help students develop professional networks; these are effective ways that can support graduate students' sense of belonging (O'Meara, Griffin, Kuvaeva, Nyunt & Robinson, 2017).

Currently, doctoral students internationally are encouraged to publish in the course of their PhD studies candidature and in some universities, publication is a key criterion for assessment of distinct doctoral degrees (Mason, 2018). Researchers who manage to publish as early as during their doctoral candidature, are likely to be more productive in research throughout their careers (Fischer, Ritchie, & Hanspach, 2012; Horta & Santos, 2015). "High-level research in Kenya is mainly funded from international sources, good-quality PhD training has been a feature of collaboration with international networks or regional research centres highly dependent on international support" (Barasa & Omulamdo, 2018 p.23).

2.5 Experiences of doctoral academic administrators in the completion of doctoral dissertations

Students are persuaded to register in certain higher institutions due to the affordability of fees, the institutions' reputation, the level of financial support offered to students, the availability of facilities, the diversity of programmes, the availability of qualified

staff, and the accessibility of scholarship and research grants (Hadi & Muhammad, 2019). Faculty qualification according to the Commission for University Education (2016) as of 2015 are: 53% of the university teaching staff were master's holders, 34% were doctorate degree holders, and 9% had bachelor's degrees. When compared with the massive enrolment numbers, there is evidence of a serious shortage of qualified teaching staff in higher education in the country especially those with doctorate qualifications. The few qualified staff have a challenge of large class sizes, increased workload, congested lecture halls, increased number of disobedient students, less motivated students, congested laboratories that are not well-equipped, and inadequate instructional facilities (Mukhwana et al., 2016).

These inadequacies may derail the mentorship of supervised doctoral students, leading to a delay in completion. Askew, et al. (2016) argue that often in many East African universities, a supervisor performs various tasks ranging from teaching course units, research to administrative duties, this limits consultation time between a student and a supervisor on the research project (Ismail, et al. 2011). In addition, Askew points that in most cases, no specific time is allocated for consultations between a supervisor and a student. Institutional barriers to completion of doctoral studies according to MacKeracher et al. (2006) include; lack of institutional financial support, inadequacy of necessary resources for research and educational activities, and non-recognition of prior learning credentials.

2.5.1 Structure of Doctoral Studies

According to CUE (2014) the requirement for enrolment to a PhD degree program in Kenya is a bachelor's degree and a two- year master's degree consecutively. The Ph.D. programs are designed to last a minimum of three years for full-time students and a

minimum of four years for part-time students to earn a degree, with a requirement for coursework or not, depending on specific university policy. Coursework in Ph.D. programs takes three to five semesters with an average of ten units, followed by at least two semesters of research work. The courses offered in the PhD with coursework programs vary between the universities as the modes of study which can be full-time, part-time, and school-based or any other mode approved by the university Senate and the Commission for University Education. The guidelines and standards of the universities require that a PhD student must produce a thesis and attend a verbal defence of a thesis of at least 50,000 words, and also be expected to publish at least two articles in refereed journals (CUE, 2014). Barasa & Omulando (2018) noted that in most universities in Kenya, timeframes for completing different stages of PhD studies are quite long causing delays in completion i.e. the process of developing and approving a research proposals is slow consequently, doctoral students are allowed to go to the field to gather data late usually towards the second half of their second year, this gives students barely enough time to collect data, write the thesis in readiness for examination and publish two articles before graduation.

2.5.2 Massification of Higher Education and Completion of Ph.D Studies

Since the past three decades, public universities in Kenya are experiencing massification; this phenomenon resulted from globalization, the advent of knowledge economy and democratization of education (Muema & Lavery, 2018). Different modes of study introduced in most Kenyan higher institutions such as full time (school based), part time (evening study) and online programmes have significant influence on the completion of doctoral studies (Maloshonok & Terentev, 2019). This influx of students into university programmes has led to a constrain in both physical infrastructure as well

as human resource available to support university education, with adverse impact on the African quality of higher education Kenya included (Mwirichia et al. 2017).

Kenya is now experiencing a sharp increase in the number of institutions offering university education CUE (2017); Sifuna, (2010) consequently, an upward students' enrolment for bachelor's, master's and Ph.D. programs is expected to continue (CUE, 2018). Rong'uno, (2016) asserts that there has been an increase in students enrolling for doctoral programmes in Kenyan higher institutions. The increase in the number of students and universities has stretched the existing Ph. D holders to their limit and has led to a high demand for personnel with Ph. D qualifications to undertake teaching, administrative, research, as well as outreach roles (Sifuna, 2010). Currently the university output of PhD holders does not meet the economic needs and market demand of the country i.e., the Commission for University Education required that all university academic staff should have attained PhD qualification by the year 2019, a requirement that has not yet been met (Mbogo et al. 2020). The findings of Jowi (2021) affirm the argument pointing that African universities have relatively a small number of academic staff with doctoral qualifications and besides the acquisition of the pre-requisite qualifications, doctoral supervisors are expected to have the knowledge and skill necessary to handle a doctoral candidate to successful completion. Supervisor expertise according to Rugut & Chang'ach (2023) is an enriching opportunity that can be developed through capacity building however, these trainings have not been prioritized and have no formal structure.

Besides the desire to pursue knowledge, the need for advancement in education as a result of the ever-growing demand for quality services and work-output, is the major motivation for higher academic qualifications among the elites Rong'uno (2016)

however, the process of acquiring a doctoral degree is, in itself, a daunting task to many students. Many doctoral students take a considerably long period of time to complete their thesis or fail to complete at all (Spence, 2009). Studies have revealed that doctoral programs have the highest attrition of all graduate programs, with almost half of the students taking six to seven years to complete (McBayer, Melton, Calhoun, Dunbar &Tolman, 2018).

Rates of completion of doctoral studies are of great concern to human resource development policy of higher education institutions as they endeavour to improve academic achievement of universities (Watthanapradith, et al. 2016). Rodwell & Neumann, (2009) and Wao, (2010) note that over the last few decades, completion of a doctoral degree is becoming a crucial research topic in higher education such that it is gaining both national and international attention.

In the U.K for example, doctoral completion rate is reported to be an estimate of 57% of the overall cumulative ten-year CGS (2008), similarly, the rate of completion in ten years after the US students commenced their doctoral programme was 56.6% Sowell, Zhang, Redd, & King, (2008) while Australia reports 50% to 60% average completion rate Rodwell & Neumann, (2009). The average rate of completion in the Netherlands is around 75% (Van de Schoot, Yerkes, Mouw, & Sonneveld, 2013). Several studies report varying rates of attrition across disciplines, i.e. ranging between 11%-68% (Lovitts, 2001; Golde, 2005; Nettles & Millett, 2006). According to Martin et al. (1999); Lovitts (2001) and Elgar (2003) doctoral studies attrition and completion rates vary by university and country and that on average, the completion rates for students on full-time programme range from 50% - 60% (Martin et al., 1999; Latona & Browne, 2001; Bourke et al., 2004). Kenyan education sector is still lacking in data on rates of attrition

even though student attrition is underscored by the inclusion of institutional statistics as basic performance indicators in evaluating educational quality as required by the national government through the Ministry of Higher Education, Science and Technology (Khamala, Makori, & Njiraine, 2018). Establishing the rates of completion of PhD studies in Kenya has been a challenge because most universities do not monitor time to graduation as a quality parameter hence data required for its calculation is not usually maintained (Matheka, Jansen & Hofman, 2020). A study designed and co-funded by the German Academic Exchange Service (DAAD) in partnership with the British Council to establish the research and PhD capacities in Africa reported that Kenyan universities had challenges in providing accurate data for the computation of PhD completion rates, however, they estimated 11% national average within six years (Barasa & Omulando, 2018).

The effectiveness of higher education doctoral programs is measured by the students' persistence to completion of studies (Nettles & Millett, 2006). Many higher education institutions still record rates of attrition ranging between 40%-60% and as high as 70% for Doctor of Education programs National Science Foundation [NSF] (2015); Nettles & Millett, (2006) with online doctoral programmes registering 10%-20% higher than residentially offered programs (Holder, 2007; Rovai, 2002; Terrell et al., 2012). While attrition in doctoral studies can occur at any stage, the highest rate of attrition in doctoral programs is documented to happen during research and scholarship stage (i.e., the dissertation stage) of the program (NSF, 2009; Rockinson-Szapkiw & Spaulding, 2014).

The United Kingdom reports an overall 57% doctoral completion rate cumulatively over a period of ten years, America 56.6% and Australia ranging at 50% - 60% with all

reporting widely varying attrition rates of between 11 - 68% across disciplines. (Choi, 2019; Sowell et al., 2008; Rodwell & Neumann, 2008). Research reveals that male students complete their post graduate degrees more quickly than female students Schroeder & Mynatt (1993) in addition, female students enrolled in doctoral programmes have high attrition rate than their male counterparts. However, the finding of Seagram (1998) showed that there is no gender difference in time taken to complete a doctoral degree. In his study, Haworth (1996) states reasons for doctoral drop-out as doctoral student frustration with academic policies, dissatisfaction with advisors, and alienating departmental environments.

Even though benefits of doctoral degree to both individual and society at large have been seen, doctoral program attrition rates still pose a major challenge across doctoral programs worldwide (Council of Graduate Schools [CGS] 2010, 2014, 2015a, 2015b). Almost universally, residential PhD programs report an attrition rate of up to 50% on the other hand attrition rate of online doctoral programmes is nearly 50-70% (Terrell, Snyder, Dringus, & Maddrey, 2012), and this loss of potential doctorates has limited applicants for positions requiring a doctorate and depleted resources from universities and students (Hunt, 2020; Lovitts, 2001). Drop-out of doctoral students represents a huge waste of not only individual students but also institutional resources Smallwood (2004) and therefore, "higher education must be committed to the success of its doctoral students, who collectively represent a stronghold on the nation's progress and superiority" Gilliam & Kritsonis, (2006 p. 3) cited by (Blanchard, (2018). Caspers (2020) notes that there is a high competition in the job markets and suggests that a degree attained at undergraduate studies is a minimal requirement and higher degrees like doctoral are required for advance research, better-paying jobs and also provide opportunity for self-actualization.

2.6 Experiences of doctoral education students and supervisors in the completion of doctoral dissertations

Barasa & Omulando, (2018) cited two main reasons for doctoral students delay in completion of a PhD degree; students' personal life and work circumstances as well as funding constraints. Barasa and Omulando (2018) asserts that most doctoral students are engaged in other life activities such as part-time teaching, other employment and family commitments such that they do not keep in touch with their supervisors after completing coursework. For most doctoral students completing the dissertation is a hurdle that influences study success and attrition (Robinson & Tagher, 2017). Most doctoral students fail to develop independence after completing coursework; they experience isolation especially when they lose peer and instructors' support (Spaulding & Rockinson-Szapkiw, 2012).

2.6.1 Student-Supervisor Relationship and PhD Study Completion

Completion of a doctoral degree is currently demand driven, universities are currently faced with a challenge of giving quality research output in addition to meeting the needs and expectations of students despite massification in higher learning institutions Bacwayo, Nampala, & Oteyo, (2017). Rokundo (2020) opines that doctoral supervision process in the contemporary times takes the aptitude of the supervisor, which to a greater extent is an outcome of a formal pedagogical learning. Student-supervisor relationship is therefore key if universities endeavour to meet international standards of doctoral studies. There is a close link between doctoral students' progress and supervisor support Rensburg & Mayers (2016); Noonan et al. (2007), as well as supervisors' pedagogical and research skills to provide precise and effective guidance through the dissertation process (Hyatt & Williams 2011).

Doctoral research activities involve investigation and problem-solving, supervisors play a key role of facilitators by giving instruction, providing guidance and monitoring the research progress of the candidates; a working student-supervisor collaboration trains doctoral candidates to be independent researchers, take responsibilities in the research process and to be more active and confident while putting into practice the acquired skills and innovations (Hakizimana, 2019). Masek (2017) reiterates in the findings of his research that research supervision is not only a process of academic development but also entails an establishment of a good working relationship between doctoral students and supervisors, consequently, supervisory relationship mainly determines the extent of satisfaction, success and disappointment of a supervisee (Katz, 2016; Jairam & Kahl, 2012). Success of doctoral students as revealed by studies is often based on effective quality supervision which takes into consideration instilling in candidates research knowledge besides empowering them to be autonomous researchers among other factors (Igumbor et al., 2020; Mulinge, & Arasa, 2013).

The role of the supervisor in a doctoral study is to guide students to successfully complete their dissertation; this includes: helping students to determine a problem and develop it into a topic, providing psychosocial support, monitoring the progress of students, assisting them to navigate the expectations of different committee members, and coaching on intrapersonal skills and strategies of managing time and stress (Vilkinas, 2008; Pearson & Brew, 2002). According to Sarwar et al., (2018); Rensburg & Mayers, (2016); Masek, (2017) factors that hinder supervision process include: lack of experience by supervisors, high workload, insufficient expertise in the research field, allocation of high number of students to supervise, compromising quality in research work, limited utilization of modern communication tools and supervisors' additional responsibilities. In their research findings, Denis, Colet, & Lison (2019) laments that

the practice of doctoral supervision largely remains a privatized practice that lack collective reflections and regular pedagogical training. Most supervisors attest to have learnt supervision through experience on the job because formal sources of learning although desired are limited (Ribau, 2020; Halse, 2011; Halse & Malfroy, 2010).

Majority of East African universities do not have clearly documented guidelines which outlines support mechanisms that foster effective supervision (Sharif et al., 2020). According to Sharif et al., (2020), in order to capture the specific needs of supervisors and students in the support process, the support mechanisms should be informed by postgraduate students and supervisors' experiences. Administrative support should also include quality control processes as well as ways of fast-tracking student-supervisor engagement and progress (Firth &Martens, 2008).

Successful completion of a dissertation has a direct bearing on a cordial relationship between the supervisee and supervisor (Akparep et al., 2017). Masek, (2017) points that in a reliable supervision relationship, supervisors: give freedom for students to make decisions on research directions, are contingent on supervisees' research proposal and search for evidence of all students' work. Socializing doctoral students into the scholarly community by giving training on how to present at academic conference, publishing and how to network is also a vital role of a mentor (Anderson & Anderson, 2012; Choi, 2019). According to Joseph and Kalabamub (2018) proper supervision, arrangements, timely feedback to students, advisor-advice meeting frequency, good relationship and an early start are key pointers of a possible high rate and timely completion of thesis writing. Mentors have the authority to guide and facilitate students' learning through provision of further reading materials and constructive feedback (Choi, 2019). Mentors are also equipped with what Halse and Malfroy (2010) call

"contextual expertise," where mentors are able to guide students through how to write a genre of academic writing and how to observe the university's requirements of candidacy. Choi (2019) notes that PhD students may often feel anxious, frustrated and overwhelmed in the journey of dissertation writing as a result of inability to progress towards achieving a doctoral degree, emotional support of the supervisors is therefore paramount throughout the doctoral journey.

Student/ supervisor relationship is crucial and studies have revealed that the quality and nature of the relationship is closely related to doctoral students' thesis completion and satisfaction (Apperson, 2019; Shin et al. 2018; Woolderink et al. 2015; Mason, 2012; Bair & Haworth 2004 & Lovitts, 2001). A poor relationship between a supervisee and a supervisor can lead to attrition (Cornér, et al. 2017; Golde 2005). Majid (2017) opines that supervisor-supervisee relationship with mutual respect, clearly set expectations, personal connections and shared values is free of pressure and thus yields positive outcome in the graduate study process if both parties acknowledge that they are learners as well as sources of knowledge. According to Rugut (2017), continuous flexible and diplomatic negotiations, commitment and support, collaboration and honesty and mutual commitment between the student and supervisors is key to efficient completion of study. He reiterates that giving timely feedback, quality guidance and efficient communicating is also crucial to timely completion of doctoral studies.

A well-established faculty mentoring programme is important because it fosters deeper mentor-mentee relationships, which in turn may enhance the experiences of doctoral candidates and eventually improve overall doctoral study persistence (Fitzgerald, & McNamara 2006). Sverdlik, et al. (2018), Kyvik & Olsen (2014) and Herman (2011), identified insufficient support by the supervisor as a significant factor affecting doctoral

attrition and reiterated the importance of a positive relationship between dissertation advisor and doctoral candidate. According to Overall, Deane & Peterson (2011), supervisor's availability; frequent meetings with doctoral student, provision of timely answers to questions via email and feedback on the student's written work is a basic factor of supervision that PhD students attach great value to (Abiddin & West 2007b; Pyhältö, Vekkaila, & Keskinen 2015; Woolderink et al. 2015).

Research findings have underscored the importance of having both the advisor and student facilitate a meaningful and positive relationship throughout the study in order to fill academic and research skill gaps that doctoral students come to the programme with (Salinas-Perez et al. 2019; Moak & Walker 2014). Chesnut, Siwatu, Young, and Tong, (2019) recommends that dissertation advisors should be trained on how to support students during the final phase of degree completion, graduate student-faculty relationships should be strengthened and students be given more opportunities to learn to conduct research and get feedback from their mentors if graduate students' confidence and willingness to successfully conduct future research is to be increased.

In addition, promoting PhD students' communication with their dissertation committee is vital to program success (Ames et al., 2018). In their study, Rockinson-Szapkiw et al. (2016) established significant relationships between indicators for doctoral student support systems and student satisfaction and recommended that doctoral programs should increase support systems to reduce doctoral student attrition. Therefore, in the interest of improving PhD student success, there is a need for university and program-specific officials to evaluate how they can best provide structured and consistent mentorship, including training/mentoring for advisors.

2.6.2 Supervision, Feedback and Study Persistence

A research supervisor is a key person throughout the period of a students' PhD journey; therefore, an effective cordial working relationship between the supervisor and the student is crucial (Shariff, Ramli, & Ahmad, 2014; Tahir, Ghani, Atek, & Manaf, 2012). According to Sambrook, Stewart, & Roberts (2008 p. 72) "the purpose of supervision is to steer, guide, and support students through the process of conducting a doctorate". Mentoring skills that faculty members possess at institutions of higher learning have a significant impact on doctoral students' training, performance, and completion of PhD degrees. Subsequently, a mentor widely regarded as an effective leader plays an important role in the development of a junior career in the same organisation (Jessop & Maleckar, 2016; Maxwell, 2009). A mentor is "an educator, a guide and a leader" who organises skills in such a way as to facilitate an individual to realize his/her career dreams (Hadi & Muhammad, 2019; Allen & Eby, 2007, p. 51).

While students' characteristics are paramount in determining the progress and completion of doctoral studies, the role of the supervisor as a study mentor is crucial that cannot be ignored Uddin, et al. (2017) because lack of constant interaction on research issues between supervisor and student impedes doctoral degree progress. A mentor has a capability to facilitate, offer support, communicate effectively, analyse, patiently listen and understand a student (Hadi & Muhammad, 2019). Hadi and Muhammad assert that the desired research mentor characteristics are: responsiveness in research approach, effectiveness in research guidance, supportiveness in research work, commitment to improvement of students' research skills, objective evaluation of students' research work, timely feedback on students' research performance, and frequent availability when needed by research students.

As a way to enhance quality in research and high rate of PhD study completion, universities should consider training supervisors and providing a code of ethics to guide doctoral students (Barasa & Omulando, 2018). Trogisch et al. (2020) adds that supervisors should also embrace collaborative supervision, whose benefit is quality research and cohesive exchange of research expertise amongst supervisors and research student.

Uddin, et al. (2017) attribute interference of doctoral study progress and ultimately delay in completion of doctoral studies to issues of funding and family engagement, the role of the supervisor and the nature of supervisor/supervisee relationship, preparation for research, psychological challenges and health problems. Research reveals that the success of doctoral studies is also determined by positive student qualities such as commitment, maintaining scientific discipline throughout the research process, motivation to publish research articles, participation in academic conferences and having a conducive interpersonal working student/supervisor relationship (Shin, Postiglione, & Ho, 2018; Bolli, Agasisti, & Johnes, 2015; Groenvynck, Vandevelde, & Van Rossem, 2013; Humphrey, Marshall, & Leonardo, 2012).

2.6.3 Challenges and Opportunities in Dissertation Writing

Postgraduate research is a guided learning process which requires the inputs of both the student and the supervisor Mulinge & Arasa (2013). Doctoral students are a very diverse group, ranging in age, experience, parent or dependent status, full-/part-time attendance, and many other aspects (Gardner, 2009a). Studies have revealed that inadequate teaching and supervision is the leading cause of poor-quality dissertations and delayed doctoral studies completion in African universities today (Mulinge & Arasa, 2013). Research indicates that there exists a myriad of reasons for low

completion rates of doctoral studies in different higher education institutions; one of the reasons is the students' failure to be intrinsically motivated and resourceful in managing the navigation of the dissertation process to persist to completion (Gardner, 2010).

Grady RK, La Touche R, Oslawski-Lopez J, Powers A, Simacek K. Betwixt & Between (2014) point that the extent of supervisors' involvement in the dissertation process of doctoral students may vary depending on the student's motivation and capabilities although he/ she plays a crucial role in the student's success throughout the coursework, dissertation process and professional development of a doctoral student. Doctoral students have shown to value autonomy Ali et.al. (2016); Levecqueet. al. (2017), and the degree of freedom PhD students have in designing and executing of their research is closely related to their success and satisfaction. According to a study by Devos et al. (2017), approximately one-third of the non-completers were being forced to work in a direction that they did not wish to follow. Doctoral students' freedom in making their own planning and in expressing their opinions is therefore positively associated to study satisfaction Shin et al. (2018) and related to completion as well. In addition, it is evident that most full time PhD students in Kenya are also full-time employees with little financial support, thus experiencing competing demands on their time which could possibly explain the low completion rate (Matheka, Jansen & Hofman, 2020).

According to Wanzala (2013), evaluation in higher education system which include thesis has come into a poor reputation of indiscretions resulting from challenges such as: -tribalism, nepotism, examination cheating, plagiarism in research, favourism in the university administration in cases of examination irregularities, students bribing registrar officials to print for them transcripts and degree certificates with desired

grades etc., all these affects the rate of PhD completion in one way or another. Moreover, poor response to technological advances, poor administration, poor student welfare services and frequent student unrest, have significantly contributed to low completion rates, low quality education, training and learning in higher institutions (Wanzala, 2013).

A student's completion of a postgraduate program on time is a factor of effective management of research activities (Eyangu, Bagire & Kibrai 2014). Although most postgraduate students complete their coursework on time, they take longer than the university schedule to graduate because they do not complete their research projects on time (Makerere University Business School, 2003, Minutes of the 79th and 80th Management committee). Eyangu, Bagire & Kibrai (2014) also points that one of the major challenges to research students is the lack of hands-on skills in the process of research especially in the early stages; there exist a missing link between the academic teaching and the research process and experience, this therefore demands a facilitative framework.

Students' adherence to task timelines is a crucial factor which impacts doctoral dissertation completion and attrition at 53%; responsible doctoral students are able to focus on tasks in order to meet timelines in research without extended breaks. (Ali, A. & Kohun, F.G. 2006; Holsinger J. W. 2008). Ali & Kohun identified social isolation as another factor of attrition in doctoral studies and proposed a structured orientation and advisor selection, formal social events, collaboration and face-to-face communication as strategies for social and resource support.

2.6.4 Academic Malpractice

In contemporary higher education setting, integrity and credibility issues in research are now more focused on surveillance and enforcement (Dawson, 2021). Dawson asserts that this adversarial approach emphasizes on detection of similarity index by use of software rather than encouraging the general practice of academic integrity among scholars. According to Wilson and Cutri (2019), academic institutions should not only focus on polished products as this makes students feel a sense that they are below standards. According to Clarence (2020), it is the responsibility of the educators to have a comprehensive doctoral education program which explicitly teaches integrity skills and enable students to be confident and value integrity, authenticity, and ethics in research and foster timely study completion. In addition, it is important to view academic integrity as a wholistic approach which can be achieved through integration of policies and surveillance strategies into pedagogical practices of doctoral education programs (Dawson, 2021).

The research writing process and expectations at doctoral level are complex and challenging, it demands that doctoral students develop specific academic skill sets that are transformed from their earlier studies (Australian Qualifications Framework, 2013). Indeed, failure of students to adhere to the rules of academic integrity often socially and contextually constructed is termed as academic misconduct that can lead to severe penalties which range from warnings to low score on an assignment or in severe cases, expulsion from the institution (Cutri et al., 2021). With the consequences of academic misconduct, imposter phenomena which is a feeling of inadequacy, low self-confidence, anxiety and having a notion of being a victim of fraud may be experienced by doctoral students causing them to experience constant disbelief in success (Lau, 2019). Lau laments that if these feelings are not controlled, they result to heightened

anxiety and low self-confidence among doctoral candidates consequently impacting negatively on productivity and success of doctoral students. Therefore, there is need for creation of peer learning environment among doctoral students in order to nurture the culture of integrity in academia and improve the academic writing skills of post-graduate students (Cutri et al., 2021).

2.7 Chapter Summary

Completion of doctoral studies is currently a growing field of research both nationally and internationally in the 21st century as it is believed that doctoral study output has a great influence on the achievement of SDGs, national goals and Kenya's Vision 2030. There have been calls for reviews and reforms in higher education in order to advance and improve quality in post graduate research and training. Improving the rate of completion of doctoral studies in higher education is also of practical importance. The gist of the arguments that are presented in this chapter is that completion of a doctoral degree is subject to multiple factors such as: post-graduate supervision, motivation and commitment, access and use of learning resources, student characteristics, financial and environmental factors.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter locates the study; gives an overview of the study design by highlighting the philosophical view and the study approach. It also describes the target population, the sample size of each approach and the procedures of sampling the participants in the study. The research instruments, their validity and reliability are outlined and the process of data analysis is also delineated in this chapter. Ethical issues considered in the study is also explained.

3.2 Philosophical Worldview

Research in social sciences entails the study of people's behaviour, beliefs, interactions, and institutions with an aim of testing hypotheses, acquiring information, and solving problems relating to human interrelationships (Neuman, 2014). Researchers, therefore, need to adopt a paradigm in their research in order to keep communication with their audience clear and without ambiguity (De Vos et al., 2014). A paradigm, often used interchangeably with world view is a frame of reference, a basic model with a set of assumptions used by researchers to collect and interpret data and organize their observations and reasoning (De vos et al., 2014; Lincoln et al., 2011; Babbie, 2007). Creswell and Creswell (2018) point that worldview comprise key sets of beliefs which guide actions in an inquiry. Barker (2003, p. 312) defines a paradigm as *"a model or a pattern containing a set of legitimated assumptions and a design for collecting and interpreting data"*. It constitutes a way of viewing the world and interpreting an inquiry and directs how research ought to be conducted, by whom and to what degree of participation and interpretation (Rubin & Rubin, 2005).

According to Tashakkori &Teddlie (2003) pragmatism is a worldview that encompasses mixed methods research as an overarching philosophy. Pragmatism is oriented towards "what works" in real-world practice (Fàbregues et al., 2021). It is pluralistic in that it combines deductive and inductive thinking by mixing both qualitative and quantitative data as the study proceeds. Pragmatists opine that there exist singular and multiple realities and advocates for valuing and consideration of both objective and subjective knowledge and finding a place for both biased and unbiased perspectives (Creswell, 2013).

This research is situated in pragmatic philosophical foundation and within mixed methods approach. This approach allows application of multiple methods and different world views. The study beliefs that 'truth' about the world cannot be accessed by a virtue of a single scientific method and thus the study utilized multiple ways in gathering, analysing and representing both numerical quantitative and qualitative data, in order to get a multidimensional view of the study problem. The study used the lens of pragmatism and mixed methods approach to find the experiences and perceptions of education doctoral students, education administrators (heads of departments and postgraduate deans), and supervisors in public universities concerning completion of doctoral dissertation. Pragmatic worldview was deemed appropriate for this study in that it enabled the researcher to gather both qualitative and quantitative data that provided a multiple perspective of the problem under study and facilitate a holistic understanding of what determines duration to completion of education doctoral study in public universities.

3.3 Mixed Methods Approach

Different authors have used different terms such as; *integrating quantitative and qualitative methods, synthesis, multi-method, mixed methodology, mixed research* as definitions for the approach however, recent authors use the term mixed methods (Bryman, 2006; Creswell, 2015). Tashakkori & Teddlie (2003) define mixed methods as the process of combining qualitative and quantitative approaches in the methodology of a study such that an inquiry aligns itself to a specific orientation, worldview and techniques. Mixed methods research allows the researcher to combine elements of qualitative and quantitative research approaches such as; viewpoints i.e. multiple worldviews, or paradigms, data generation, data analysis and inference techniques so as to get a deep and wide understanding and corroboration (Johnson *et al.,* 2007). According to Ishtiaq (2019) mixed methods combine methods, research design, and philosophy orientation by rigorously collecting and analysing both qualitative and quantitative data in response to questions and hypotheses of an inquiry, it integrates the two forms of data and their results, organizes research procedures into specific logical research designs framed within theory and philosophy. Mixed methods research is flexible and practical in that a researcher has freedom to use all possible methods to address a research problem using both numbers and words by combining inductive and deductive logic through adductive thinking (Morgan, 2007). Mixed methods research therefore is a vantage mode for understanding the world. Limitations of a single method can be offset by the strengths of the other, and hence a combination of quantitative and qualitative data provides a broad understanding of the research problem than either approach by itself.

This study considered convergent mixed method research approach as appropriate to the research interest because it enabled the researcher to adopt a pluralistic stance of

gathering varied forms of data to best answer the research questions. Both quantitative and qualitative data was generated via questionnaires, focus group discussions and interview schedules in the same phase and merged to form a basis of analysis and broad understanding of determinants of doctoral study completion.

3.4 Convergent Mixed Method Design

Convergent design is a popular approach to mixed methods initially conceptualized as a triangulation design in the 1970s, simultaneous triangulation (Morse, 1991), parallel study (Tashakkori & Teddlie, 1998) and convergence model. Despite varied names, the convergent design is a mixed methods design in which the researcher simultaneously gathers and analyses two separate databases quantitatively and qualitatively and then merges the databases for the purpose of comparing or combining the results (Fàbregues et al. 2021). Convergent design enables the researcher to obtain a deeper understanding of the research problem by using different but complementary data on the same topic (Morse, 1991, p. 122). This design examines relationships among variables, brings together the strengths and weaknesses of quantitative and qualitative methods and serves the purpose of corroboration and validation (Parvaiz, 2016). George (2025) reiterates that the convergence of both qualitative and quantitative data may give a contextual view of the research findings and reinforces the validity of the study conclusions.

This study utilized a convergent mixed method design; data were collected concurrently but typically separately, i.e., one does not depend on the results of the other; qualitative and quantitative data were given equal significance for addressing the research questions of the study (Creswell et al., 2023). Quantitative and qualitative analytic procedures were used in the analysis, and the results were merged in a discussion. The

study triangulated the results in order to identify convergence and corroboration of results from different methods. This method was deemed suitable for this research whose intentions were to answer the research questions in a blended perspective so as to get a deeper understanding of determinants of completion of doctoral dissertations in selected Kenyan public universities using different but complementary data on the same topic. The figure that follows illustrates the research design of the study.

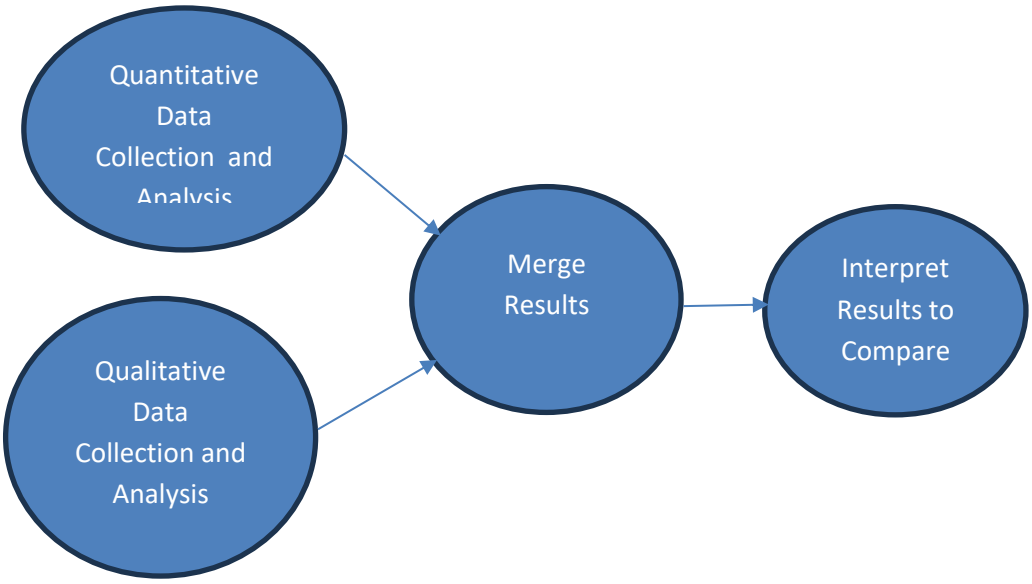

Figure 3.1 Convergent Parallel Design (Adapted from Creswell & Creswell, 2018)

The quantitative data was generated using structured questions of a questionnaire for both the doctoral students and the supervisors while the qualitative data was gathered using unstructured questions in students' and supervisors' questionnaire, focus group discussion for supervisors and individual interviews for administrators.

Table 3.1 Blueprint of the Research Design

Research Constructs	Approach	Independent Variable	Data Collection Instruments
(i). The extent of doctoral students' preparedness for completion of doctoral dissertation	Quantitative & Qualitative	Student preparedness	Questionnaire FGD Interviews
(ii). The level of accessibility and use of learning resources by doctoral students for completion of doctoral dissertation	Quantitative & Qualitative	Students' access and use of learning resources	Questionnaire FGD Interviews
(iii). Perceptions of doctoral administrators on completion of doctoral dissertation	Qualitative	Perceptions of administrators	Interviews
(iv). The experiences of doctoral students and supervisors on completion of doctoral dissertation	Qualitative	Experiences of students and supervisors	Questionnaire FGD

3.5 The Study Location

There were 31 public universities in Kenya according to CUE (2018). This study was conducted in four public universities in Kenya. These universities were selected on the basis of well-established doctoral studies in at-least education departments of; Educational Psychology, Educational Foundations, Curriculum Instruction and Educational Media, Educational Administration Planning and Management for more than ten years.

3.6 Target Population

Study participants were selected from the 2016-2018 cohorts of doctoral students who were still in the stage of data collection and thesis writing at the time of the study's data collection. This is the cohort of doctoral students who were assumed to be in their fourth and fifth years in their study since enrolment and had exceeded the recommended three to four years in most universities before completion. In a target population of 118

doctoral students in all four universities, fifty-five doctoral students responded to the semi-structured questionnaires. Education administrators in charge of doctoral studies who were the Deans and Heads of Departments also referred to as (Chairs of Departments) were considered as study respondents since they constitute the personnel in charge of doctoral academic activities day in day out in their responsibilities. A total of 20 administrators; four Post-graduate Deans and sixteen Heads of Departments in the faculty of education participated in the study through individual interviews. Thirty-two supervisors who have at least supervised two doctoral students to completion in the school of education across the four departments were also selected to respond to questionnaires since they have supervision experiences. Four focus group discussions were conducted with eight supervisors from each of the four universities.

3.7 Sampling Techniques and Sample Size of the Study

Sampling refers to the process of selecting cases to be included in the research project (Gibson & Brown, 2009). It entails the process of setting boundaries for a research study through recruitment of study participants; the researcher identifies the selected sites and or individual(s), visual materials or documents that will assist the researcher in understanding the problem and effectively answering the research questions for the proposed study (Creswell & Creswell, 2018). A sample is a subset of a population in which a researcher intends to study with an aim of drawing conclusions about the target population as a whole (Rahi, 2017). There is no precise answer on the number of sites and participants that a qualitative researcher should have in a study however, literature reveals variety of perspectives (Tomaszewski et al., 2020).

On the other hand, quantitative research in its purpose aims at a representative sample from a large number of cases and thus utilizes probability sampling strategies, while qualitative research does not aim at a representative sample; consequently, non-

probability sampling strategies better fit qualitative studies (Neuman, 2014). The sample size according to Kothari (2004) should be optimal. This study therefore being mixed methods approach utilised both probability and non-probability sampling strategies to select study participants.

3.7.1 Purposive Sampling Strategy

The purposive sampling technique is mostly used in field research or exploratory research. This technique utilizes the experts' judgment to select unique, informative, and particular cases with a specific purpose in mind (Neuman, 2014). It describes the process of selecting specific research participants because they possess particular characteristics, roles, opinions, knowledge, ideas or experiences that are relevant to the research (Gibson & Brown, 2009). This strategy uses various methods to selects all possible cases that fits best to a particular criterion (Neuman, 2014).

In this study, purposive sampling was used to select public universities with well-established doctoral studies in education in at-least four of the education departments namely; curriculum instruction and educational media, educational psychology, educational foundations and educational administration planning and management. The four departments were arrived at after looking critically at education doctoral programmes in public universities and found to be the most common among all other doctoral education programmes. These higher institutions were selected with a purpose of getting more homogeneous education departments as rates of completion might vary depending on programmes. Having been long established, public universities were purposively focused in this study since they serve a large population of postgraduate students.

The academic administrators of doctoral education; the Dean and four Heads of the selected departments in each of the four universities were purposively chosen since they are responsible for running doctoral students' programmes and are the implementers of policies, rules and regulations governing doctoral studies. Doctoral students at the stage of data collection and dissertation writing as well as supervisors who have at least supervised two doctoral students to completion were purposively selected to participate in the study due to the focus of the study and supervision experience in dissertation writing respectively. The researcher was guided by the heads of the four departments in each of the universities to purposively select two supervisors per department to respond to the questionnaire and participate in the FGDs based on their vast doctoral supervision experience.

3.7.2 Quota Sampling

The quota sampling technique selects a pre-set number of cases from pre-determined categories that reflect the population diversity using haphazard methods (Neuman, 2014). Neuman points out that the researcher in this technique first identifies relevant categories that will capture diversity among units and also determine the number of cases to be obtained from each category. This study, utilised a quota sampling strategy to proportionally select two supervisors who responded to the supervisor questionnaires and participated in the FGDs from each of the four participating departments of education in each of the four universities.

3.7.3 Simple Random Sampling

Based on the inquiry there are various sampling designs that can be applied in research however, the sample size needs to be optimal i.e. satisfies efficiency requirements, representativeness, dependability, and adaptability. Kothari and Garg (2014) propose a

sample size of 10% for a population of more than 1000 respondents, 30% for a population of more than 100 but less than 1000, and 50% for a population of more than 10 but less than 100 (Kothari & Garg, 2014). In this study, the target population of doctoral students in all the four departments of the participating universities was less than one hundred, this study utilized simple random sampling strategy to select 50% of doctoral student participants who were enrolled in the four education departments between the years 2016 to 2018 and were at the stage of data collection and dissertation writing at the time of data collection of the current study. The researcher generated random numbers for the population frame of students and the subjects corresponding to the numbers picked and included in the study sample.

3.8 Research Instruments

Successful researchers draw from multiple data sources in order to make detailed interpretations on a research problem (Creswell & Creswell, 2018; Mutch, 2006). Friday (2016), citing Kaonde-Ng'andu (2014), describes research instruments as tools used by the researcher in collecting necessary research data. There are various basic types of procedures and instruments for gathering data in research. Questionnaires and standardized tests are the main instruments commonly used to gather quantitative data however, in many studies based on qualitative approach, researchers spend significant time in the participants' natural setting gathering multiple forms of data using; qualitative observation, qualitative interviews and focus group discussions, qualitative document analysis, open-ended questionnaires and qualitative audio-visual and digital materials among other approaches (Tomaszewski et al. 2020; Caroleo, 2002). This convergent mixed method study, mixed the methods also referred to inter-method mixing Johnson and Christensen (2024), with an aim of triangulation, achieving data diversity and increasing reliability of results by using: semi-structured questionnaires,

focus group discussions and individual interview techniques to gather qualitative and quantitative research data.

3.8.1 Questionnaires

A questionnaire is a research tool commonly used to obtain qualitative or quantitative important data about the population; items in the tool are developed to address specific objectives, research questions, or study hypotheses (Mugenda & Mugenda, 2003). Questionnaires may be used by researcher to elicit participants' thoughts, attitudes, feelings, beliefs, perceptions, values, personalities, as well as behavioural intentions (Burke & Christensen, 2014). Questionnaires can be structured or unstructured. Structured questionnaires, also known as closed-ended questionnaires, comprise predetermined, concrete, and definite questions presented to all respondents in the same order and wording and accompanied by a list of all possible alternatives from which respondents select the answer that describes their situation best (Kothari, 2004). At times it is not practical to exhaust all categories that describe the phenomena under study in all cases and as such a category called "other" is included to represent all other responses not fitting the given categories. Closed ended questionnaires are easier to administer, analyse and economical to use however it is a challenge to construct and if limited responses are provided respondents' situations is not best described (Mugenda & Mugenda, 2003). Highly structured questionnaires hold respondents' comments in their own words to the minimum.

Unstructured questionnaires on the other hand are questionnaires whose questions are open ended inviting qualitative free responses from participants. Advantages of unstructured questionnaires according to Mugenda & Mugenda (2003) is that it stimulates respondents' motives and enables the respondent to give a deeper personal response that may highlight his or her background, perceptions, feelings, interests,

motivation and decision. Unstructured questionnaires are simpler to formulate however, it is time consuming to administer and if the open-ended questions are not designed to be very specific, respondents are likely to digress and give information that will not answer the stipulated research questions and objectives (Hirose, & Creswell, 2023; Kothari, 2004).

Questionnaires can as well be semi-structured in nature i.e. comprising of some questions whose responses are limited to the stated alternatives and other questions which permits the respondents to freely express their attitudes, beliefs, views and feelings in their own words (Ivankova & Creswell, 2009). Semi-structured questions are fairly flexible, sensitive, emphasize validity and generate in-depth information to inform the study (Kothari, 2004), however comparing responses of one respondent to another is a challenge, time consuming and difficult to analyse (Hirose, & Creswell, 2023). The level of structure of a questionnaire influences the nature of data gathered in a study, i.e. highly structured questions produce quantifiable data whereas less structured questions yield predominantly qualitative data (Mugenda & Mugenda, 2003).

A semi-structured questionnaire was deemed suitable for the current mixed method study and was used in this study to gather both quantitative and qualitative data from the selected students, and supervisors on two research objectives *(Refer to appendix I & IV).* The students' and supervisors' questionnaires were constructed to have a section on informants' background information, a section with structured questions and a section for unstructured questions on determinants of completion of education doctoral dissertation. The structured items were rated at five-point Likert scale while the unstructured questionnaire items were presented to the respondents to freely give their opinions on the specific questions.

3.8.2 Interviews

Interviewing is considered as a very significant and rich source of data because it allows participants to report their social human issues, experiences and thoughts by themselves (Jwan & Ong'ondo, 2011). Research interviews require the investigator to engage the participant in face-to-face interviews, telephone interviews, or focus group interviews that comprises six to eight research participants per group (Creswell & Creswell, 2018; Tomaszewski et al. 2020). Interviews can be unstructured, semi-structured or structured but all draw on an interview schedule that directs the interview focus in order to answer the research questions. Most qualitative interviews are generally unstructured with few open-ended questions aimed at eliciting participants' views, beliefs, perceptions and opinions of a particular issue under study (Goldspink et al. 2024). Goldspink et al. reiterate that semi-structured interviews are flexible to both researchers and participants in that the researcher develops an interview schedule with pre-determined open-ended questions which guide the interview session, but interviewees freely structure their responses.

According to Neuman, (2014) natural settings probe individuals to freely express their views, opinions and ideas. The participants' freedom of expression may lead to clarification of issues amongst participants. Tracy (2024) points some of the strengths of interviews that; they give mutual discovery, reflection and understanding. Tracy also highlights that prompting interviewees provide explanations and elucidate subjective viewpoints and participants subjectively lived experiences.

The advantage of interviews is that the researcher controls the direction of questioning through probing, they are preferably used when observations of participants cannot be done directly; they also account for data with historical information (Creswell & Creswell, 2018). On the other hand, interviews may take place in the presence of the

researcher at designated places away from natural field setting which may lead to biased responses from participants; interviewees may also filter their views leading to gathering indirect information (Creswell & Creswell, 2018).

Individual interviews were utilised in this study to generate data from education administrators in charge of doctoral studies on research objective three *(Refer to appendix III)*. An interview schedule was used by the researcher to guide the interview by moderating it towards answering the research questions and prompting the respondents for deeper understanding of the study problem.

3.8.3 Focus Group Discussion

Focus groups discussion is an important research method of discovering participants' feelings, values, attitudes, reactions and experiences about a topic. FGDs enhance group dynamics that can generate "synergy, stimulation, and spontaneity" resulting in collection of data, that is "rich" and have "high quality" (Sidika, 2007).

This study utilized FGDs with eight purposively selected supervisors; two from each of the four education departments in each university in order to get a deeper understanding of supervision experiences *(Refer to appendix II)*. A voice recorder was used to record the proceedings of FGDs for later analysis.

3.9 Validity and Reliability of the Instruments

Before commencing the data gathering process, it is important for the researcher to ensure that the instruments that will be used are valid and reliable in order to yield meaningful results. Reliable and valid studies are those whose research instruments produce consistent results after repeated trials and their inferences are accurate, meaningful and based on the research results (Creswell & Creswell, 2018). Rigor in research is achieved when the researcher apply diligence in all practices pertaining the

inquiry such as collecting sufficient data that can support significant findings, spending adequate period in the field to gain trust, identifying theoretical goals which are aligned with the research sample or context, applying appropriate field procedures in terms of writing field notes, conducting interviews and analysing data (Tracy, 2024).

3.9.1 Pilot Study

Piloting a research study is important as it enables the researcher to establish the reliability and validity of the instruments to be used in the actual inquiry with the aim of improving questions, formats, and scales (Creswell, 2014). It is important to mention that the researcher conducted a pilot study in one public university in Kenya with a similar setting and characteristics as the sampled population before the actual data collection commenced. In the pilot study, the researcher used all the instruments designed for the actual data collection and followed the outlined research procedures. This enabled the researcher to estimate the time required for data collection, helped to identify and address the gaps in the accuracy of instruments, and challenges that threatened the study's validity and reliability. The student sample population in each of the four departments selected in the university in which a pilot study was conducted, one student respondent in each department was included for pilot study based on the views of Mugenda and Mugenda (2003) who state that a sample of a pilot study should range between 1% -10% of the total research sample. Four supervisors, four Heads of Departments and one Post-graduate Dean were purposively selected to participate in the pilot study. The piloted university did not form part of the sample population however, the data collected and results of the pilot study were critiqued and instrument items were amended to minimize ambiguity. This enhanced validity by improve effectiveness of the tools used in the actual study and confirmed the relevance of the responses in answering the study research questions.

3.9.2 Validity of the Instruments

Mixed methods research involves the use of both quantitative and qualitative approaches and concepts that have complementary strengths and non-overlapping weaknesses in a single study (Johnson & Onwuegbuzie, 2007; Tashakkori & Teddlie, 2003). No matter the tool used to collect data in research, it must gather correct and relevant data that is pertinent to the study objectives and can accurately answer the research questions (Tracy, 2024). Kothari, et al. (2009) assert that validity in research is the most important criterion as it shows how well a research tool measures what ought to measure (Kothari et al. 2009). Validity is the accuracy and meaningfulness of inferences based on study results; internal validity is about how the researcher concludes that a relationship between the variables is causal while external validity refers to the validity of interpretations about whether the cause–effect relationship results of the study can be generalized to and across populations (Reichardt, 2002).

In order to ensure that the instrument content was complete and appropriate, logical for the scope of the targeted variables and accurately representing the content to be measured in accordance to Orodho et al. (2016), the researcher followed the outlined sampling procedures and applied expert judgment validity. Here, the researcher developed the questionnaires guided by supervisors; did a pre-test of the instrument, critiqued, amended the items and tool effectiveness was determined and improved before the actual field study was conducted.

3.9.3 Reliability of the Instruments

Reliability refers to the degree to which equivalent results are attained when a specific measuring instrument is used repeatedly (Orodho et al., 2016). The reliability of research instruments can be estimated using various techniques. This research study employed Cronbach's alpha statistics in checking the internal consistency of the scales

used (Creswell, 2014). First quantitative scores were coded from doctoral students' and supervisors' questionnaires subsequently Cronbach's alpha was computed in SPSS and its interpretation was used to determine the level of internal consistency of the questionnaires.

For most purposes, a Cronbach's Alpha value greater than or equal to 0.70 is considered acceptable for reliability (Nunnally, 2000). In the current study, revision was done for unreliable questionnaire items whose computed Cronbach's alpha value was less than 0.70 to ensure that they meet the reliability requirement. The following tables show the construct reliability and internal reliability respectively.

Table 3.3: Internal Reliability of the Study

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.849	0.818	16

3.9.4 Trustworthiness

Trustworthy research is one in which its' processes are truthful, sufficiently rigorous and qualify to make its claims (Shufutinsky, 2020). In the case of qualitative data of this study, several strategies were employed in order to attain trustworthiness in accordance with Korstjens and Moser (2018). Trustworthiness entails all the steps taken to ensure that research is rigorous and truthful to make its claims, it is demonstrated by the concepts: of credibility, transferability, dependability and confirmability. The credibility of the research findings of this study was increased by triangulation of the three methods of data collection. The questionnaire responses, and focus group discussions were compared with individual interviews, this gave a wider perspective of determinants of dissertation completion of doctoral studies. Probing the participants

during the interviews and focus group discussions stimulated respondents to elicit more information that enabled clarity of facts and explanation of concepts that would be complex. In order to draw conclusions that reflect true representation of the views of participants, the researcher conducted member checking' to verify if the researchers' interpretations matched the experiences of the participants (Korstjens & Moser 2018), hence demonstrating confirmability of the study.

The researcher made the account credible for the reader by providing a detailed and rich description of the research participants, context, methods and findings. The researcher also spent enough time in the field until she attained data saturation. Note taking, recording of data was also done to ascertain the plausibility of the data gathered. The researcher integrated direct quotations from participants while reporting results to enable the reader get a better understanding of the respondents. Peer coding for the purpose of comparison and ensuring accuracy was also carried out in order to reduce researcher's biases in qualitative analysis.

3.10 Data Collection Procedures

Data generating process of this study begun with the researchers' preparation and review of data generating tools; semi-structured questionnaires, FGDs schedule, interview schedules and also preparation of participants' consent forms. The researcher then sought a letter of approval to conduct the research from Moi University School of Education and used it to consequently apply for a research permit from NACOSTI Kenya. After acquiring the permit, the researcher sought permission to collect data from the four institutions' doctoral students, supervisors and administrators by writing acceptance letters to the Dean's school of education of the four participating institutions and one university for piloting. When permission was granted from the institutions, the

researcher first piloted the research tools using the same categories of participants from a public university with similar characteristics to the sampled ones. The pilot results were used to review the instruments in order to guarantee reliability. The researcher then sought the assistance of the Deans and Heads of the four selected Education Departments alternatively referred to as Chairs of the Departments (C.O.D) in order to get details of doctoral students and supervisors. The researcher focused on the database of doctoral students belonging to cohorts 2016 to 2018 who were at the stage of data collection or the dissertation report writing stage at the time of data collection of the current study, from where study participants were sampled. The Heads of the Departments also assisted in getting the supervisor's sample frame and contacts of two purposively selected supervisors to respond to the questionnaires.

The researcher then delivered hard and soft copies of semi-structured questionnaires with consent forms to the doctoral students and supervisors for them to respond to after consenting. Based on the respondents' consent and requests, 16 questionnaires were delivered to students in hard copies and 43 in soft copies. The researcher also purposively identified eight supervisors, two from each department and conducted FGDs that were recorded for analysis after respondents consented. Interviews of education administrators in charge of doctoral studies were also concurrently conducted. The interview sessions were recorded and the researcher also took notes simultaneously for later analysis of data. The researcher received a total of 55 questionnaire responses from students: 15 hard copies and 40 soft copies. All the 32 questionnaires from the supervisors were received, recordings of the four FGD from each of the participating universities and interviews of administrators from all the four universities were done for analysis.

3.11 Data Presentation and Analysis

Data analysis is the process of bringing order, structure and meaning to the mass of data gathered in the study field (De Vos et al., 2014). It is an "activity of making sense of, interpreting and theorizing data" (Schwandt, et al. 2007 p.6). This mixed method approach research applied both quantitative and qualitative strategies of data analysis. The quantitative data from doctoral students' and supervisors' semi-structured questionnaires aimed at answering two research questions which were analysed by descriptive statistics using frequencies, percentages, mean and standard deviation. Descriptive methods of quantitative data analysis were used with the help of the Statistic Package for Social Sciences (SPSS) version 2.4 to determine the extent of student preparedness, access and use of resources on dissertation completion. The mean, standard deviation and percentages were generated to reveal the study findings. The interpretation of each statistical mean was done anchored on the mean limits of the five-point Likert scale categories proposed by Aziz et al., (2020) and Erarslan (2016:106) in which the mean ranges are as follows:

Table 3.4: Interpretation of Means

Mean score	Interpretation of Mean
1.00-1.79	Very Low
1.80-2.59	Low
2.60- 3.39	Moderate
3.40-4.19	High
4.20-5.00	Very High

This study also applied the guidelines of Bogdan & Biklen (2007) and Tesch method (Creswell 2005) on thematic analysis. The researcher transcribed, organized, reduced and described raw qualitative data that was drawn from the semi-structured questionnaires, focus group discussions and individual interviews. Open coding

strategy of breaking down, examining, comparing, conceptualizing and categorizing qualitative data guided the inductive process of thematic analysis in the qualitative aspect of the study (De vos, Strydon, Fouche & Delport, 2014). The qualitative data was coded and commonly emerging categories and themes were sought based on methodological approach of Elliott (2018) who states that the researcher familiarizes himself or herself with data, generates initial codes, search for themes, review themes, define and name the themes and report. Both quantitative and qualitative data were analysed separately and later merged together for comparison.

3.12 Ethical consideration

Researchers are expected to adhere to certain ethical guidelines while conducting research (Yip, et al. 2016). This mixed method study adhered to professional ethics and conduct and followed ethical principles that enabled protection of human participants' rights during and after the process of data gathering. The researcher upheld research ethical issues by first seeking a letter of approval to conduct research from School of postgraduate Studies, Moi University and research approval from Kenya NACOSTI (*refer to appendix v*). Acceptance letters from the education faculties in the universities under study were also sought.

The researcher articulated the study objectives in the research instruments both in writing and verbal in the case of interviews and FGDs so as to be understood by the respondents. The researcher made all data generation devices such as audio recorders and activities known to the informants before commencement of data generation process. The study respondents were treated with utmost respect, informed that their participation in the study was voluntary and that they had the right to withdraw at any time and stage of the investigation if need be. Signing of participants' informed consent forms and confidential clauses were sought before data gathering commenced.

Throughout this study, the participating institutions and participants remained anonymous as the researcher used pseudonyms, data gathered was also treated with high confidentiality. The researcher freely availed verbatim transcriptions and written interpretations and reports to the participants for verification purposes. The rights of the participants, interests, safety and wishes were considered first when making decisions regarding reporting the data at all times. Finally, the whole research process upheld integrity.

3.13 Chapter Summary

This chapter has located the study in a pragmatic philosophical view, which combines deductive and inductive thinking by mixing both qualitative and quantitative data, and holds that there exist singular and multiple realities. The study approach, which is mixed method, is also illustrated in this chapter, and the characteristics of application of multiple methods in gathering, analysing, and representing both numerical and qualitative data, which determines its suitability for this study, are highlighted. A convergent mixed method research design that guided this investigation has been described illuminating on simultaneous triangulation and equal emphasis on both qualitative and quantitative data.

Purposive, quota and simple random sampling strategies and their appropriateness in this study have been elaborated. The tools for data generation namely; a semi-structured questionnaire, focus group discussion (FGD) and individual interviews have been explained and the process of data generation outlined. The descriptive analysis of quantitative data and Tesch method for thematic analysis are described as methods that guided the analysis of generated quantitative and qualitative data respectively. The validity, reliability, trustworthiness of the data and also consideration of ethical issues

are described in this chapter. A summary of the research design and methodology has been illustrated in the table that follows.

Table 3.5: Blue print of research design and methodology

Chapter sections	Position of study
Research paradigm	Pragmatic philosophical foundation
Research approach	Mixed method
Research design	Convergent mixed method design
Study area	Public universities in Kenya
Target population	Doctoral students, supervisors and academic administrators
Sampling techniques	Purposive, quota sampling and simple random sampling
. Data gathering tools	Semi-structured questionnaire, Focus Group Discussions and Unstructured individual interviews
i. Data analysis	Descriptive Statistics Thematic analysis
Validity	Expert Judgement
Reliability	Cronbachs' alpha
Trustworthiness	Use of credibility, dependability, confirmability and transferability
. Ethical considerations	Research approval and permission, confidentiality, safety of participants, anonymity, consent, objectivity and honesty, adherence to professional ethics and conduct, voluntary participation

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, INTERPRETATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the study findings, interpretations and discussions based on the research objectives and research questions. The objectives of the study aimed to achieve the following;

(i) To assess the preparedness of doctoral education students for the completion of the doctoral dissertation

(ii) To explore accessibility and use of learning resources by doctoral education students for the completion of the doctoral dissertation

(iii) To examine perceptions of education administrators (heads of departments and deans) on completion of the doctoral dissertation

(iv) To explore supervision experiences of doctoral education students and supervisors on completion of doctoral dissertation

4.2 Characteristics of the study sample

This study sought to investigate determinants of dissertation completion of education doctoral studies in selected Kenyan public universities. In order to answer the objectives of the study, four Kenyan public universities were purposively selected and given acronyms; University A, university B, University C and University D. University A and B were the universities which offered doctoral degrees in education by research only while universities C and D offered the doctoral studies by coursework and research at the time of data collection. These universities were selected on the basis of well-established doctoral studies in education departments of; Educational Psychology,

Educational Foundations, Curriculum Instruction and Educational Media, Educational Administration Planning and Management for more than ten years. These universities are also believed to be endowed with fundamental infrastructure essential in running doctorate education programmes and have experienced academic staff.

The study sample comprised of; doctoral education students from the four selected departments who enrolled between the years 2016-2018, who by the period of data collection of the current study were in their fifth and sixth years of study respectively, education academic staff in the four selected departments who have supervised at least two doctoral students to completion, heads/chairs of the four selected departments and dean of post-graduate in the faculty of education in each of the four universities. To conceal their identification, the student and supervisor participants from the four universities and in the four departments of education were given acronyms of four characters; the first letter represents the university (A-D), the second letter (S or L) represent student or supervisor respectively, the third letter (C,P,A or F) represents the department of the respondent i.e. (department of Curriculum Instruction and Educational Media (C), Educational Psychology (P), Educational Administration and Planning (A) and Educational Foundations respectively (F) and the fourth character represents the number of the participant.

4.3 Doctoral students' distribution in each university

Information on students' distribution in each university and department were summarized in the table that follows.

Table 4.1: Distribution of students in each university

University	Department	Respondents		Total
		Male	Female	
A	Educational Psychology	1	2	3
	Educational Curriculum	2	2	4
	Educational Foundations	3	1	4
	Educational Planning and Management	2	1	3
Total		8	6	14
B	Educational Psychology	3	1	4
	Educational Curriculum	1	2	3
	Educational foundations	1	1	2
	Planning and Management	1	2	3
Total		6	6	12
C	Educational Psychology	1	3	4
	Curriculum Studies	1	2	3
	Educational Foundations	1	1	2
	Planning and Management	2	2	4
Total		5	8	13
D	Educational Psychology	2	1	3
	Curriculum Studies	1	3	4
	Educational Foundations	2	1	3
	Planning and Management	3	3	6
Total		8	8	16
Grand Total		27	28	55

Source: Research data 2022

From a target population of 118 doctoral students in the dissertation stage of doctoral studies in the four universities, a total of 59 questionnaires comprising 50% of the respondents were self-administered to doctoral students of which 16 were hard copies

and 43 were mailed to the students (*refer to appendix i*). Response was received from 55 questionnaires which comprised 93 % of the sampled participants.

4.3.1 Response rate for doctoral supervisors and educational administrators

A total of 32 supervisors responded to the study questionnaire (*appendix iv*); two from each of the four departments in the four universities. Eight supervisors in each university participated in the focus group discussion, two from each of the four departments in each focus group discussion. The COD and Dean of post graduate in the faculty of Education in each of the four universities were interviewed.

4.4 Demographic information of respondents

This section presents the demographic information of participants

4.4.1 Demographic information of doctoral students

This section illustrates demographic information of doctoral student participants

4.4.2 Gender

The gender distribution of the doctoral student respondents is presented in Table 4.2.

Table 4.2: Gender distribution of doctoral students

	N	%	Mean	Std Dev
Male	27	49.1%		
Female	28	50.9%	1.51	.505
Total	**55**	**100.0%**		

Research data (2022)

The results indicated that there was a gender balance of student respondents

4.4.3 Departmental distribution of doctoral students

The table 4.3 presents information on departmental distribution of student respondents

Table 4.3: Departmental distribution of student respondents

	N	%	Mean	Std Dev
Curriculum instruction and educational media	14	25.5%		
Educational psychology	14	25.5%		
Educational foundations	11	20.0%	2.53	1.168
Administration planning and management	16	29.1%		
Total	**55**	**100.0%**		

Research data (2022)

The department of Educational Administration, Planning and Management had the highest number of respondents however, there was no major difference in the number of respondents across all the departments.

4.4.4 Nature of study programme

The nature of the study programme in which doctoral students were enrolled to is presented in table 4.4.

Table 4.4: Nature of study program of doctoral students

	N	%	Mean	Std Dev
Research based	22	40.0%		
Coursework and research-based	30	54.5%		.531
Other	1	1.8%	1.60	
None response	2	3.6%		
Total	55	100.0%		

Research data (2022)

While more than half the doctoral students pursued education PhD programmes by coursework and research, 40.0% pursued education PhD programme by research only. Only one respondent stated to be enrolled in other study programme.

4.4.5 Age

The details of age distribution of doctoral students are presented in the table that follow

Table 4.5: Age profile of student respondents

	N	%	Mean	Std Dev
30-39 years	12	21.8%	1.95	.621
40-49 years	34	61.8%		
50-59 years	9	16.4%		
Total	**55**	**100.0%**		

Research data (2022)

The majority of the student respondents were aged between 40-49 years. While it is expected that doctoral students in the age bracket of 30-39 years would be the majority, it was only represented by 21.9% and advanced age of 50-59 years had the least respondents.

4.4.6 Mode of study of doctoral students

Table 4.6 presents the distribution of students based on their mode of study

Table 4.6: Mode of study of student respondents

	N	%	Mean	Std Dev
Full time	28	50.9%	1.85	.951
Part time	8	14.5%		
Blended mode	18	32.7%		
Online	1	1.8%		
Total	**55**	**100.0%**		

Source: Research data (2022)

Most student respondents across the four universities were on full time study mode. Statistics depicted that 32.7% were on a blended mode while few students were on a part time and online mode.

4.4.7 Nationality

The table that follows presents the nationality of doctoral student respondents

Table 4.7: Nationality of student respondents

	N	%	Mean	Std Dev
Citizen student	51	92.7%	1.02	1.39
International students	1	1.8%		
None response	3	5.5%		
Total	**55**	**100.0%**		

Source: Research data (2022)

Nearly all student respondents (92.7%) were Kenyan citizen students. Only one student respondent was an international student however, there was no response by three participants.

4.4.8 Reasons for choosing to study at the current university

The reasons for respondents' choice of their universities are presented in the table that follow

Table 4.8: Reasons for respondents' choice of their universities

	N	%	Mean	Std dev
Convenience (i.e., accessibility, distance etc.)	22	40.0%	1.89	1.013
Affordability of fees	23	41.8%		
Mode of study	8	14.5%		
None response	2	3.6%		

Source: Research data (2022)

Affordability of fees and convenience in terms of accessibility were the major reasons for the respondents' preference to study at their universities. Only 14.5% based their choices on the institutions' modes of study and 3.6% did not respond.

4.4.9 Doctoral student motivation to pursue a PhD degree?

Table 4.9 presents the respondents' motivation towards pursuing a PhD degree.

Table 4.9: Doctoral students' motivation to study

	N	%	Mean	Std dev
To get employment	7	12.7%		
Get promotion in the current employment	8	14.5%		
Change employment to a better paying job	34	61.8%	2.71	.832
Expand own research knowledge and skills	6	10.9%		
Total	**55**	**100.0%**		

Source: Research data (2022)

The findings established that majority; (61.8%) of the student respondents were motivated to pursue doctoral studies in order to change their employment to a better paying job. Getting promotion, employment and expanding research knowledge and skills was an inspiration to complete doctoral studies for student respondents ranging between 10.9 and 14.5 percent.

4.4.10 Study sponsorship of student respondents

The information on doctoral student sponsorship is presented in the table that follow

Table 4.10: Student distribution based on the study sponsorship

	N	%	Mean	Std Dev
Self-sponsored	51	92.7%		
Sponsorship by other individuals	1	1.8%		
Scholarship by an organization	2	3.6%	1.22	.809
Other sponsorship e.g., bursary, C.D.F etc.	1	1.8%		
Total	**55**	**100.0%**		

Source: Research data (2022)

The descriptive statistics for the doctoral study sponsorship indicated that a greater percentage of student respondents were self-sponsored however, a few students had scholarships by organizations and other sponsorships.

4.4.11 Nature of employment while undergoing the study

Table 4.11 presents the students' status of employment while pursuing the doctoral study.

Table 4.11: Employment status of student respondents during the study

	N	%	Mean	Std Dev
Full time employment	36	65.5%	1.38	.561
Part time employment	17	30.9%		
Unemployed	2	3.6%		
Total	55	100.0%		

Source: Research data (2022)

More than half of the student respondents were on full time employment while pursuing their doctoral studies. Those employed on part-time basis were 30.9% while 3.6% were unemployed at the time of study.

In general, the demographic information of the student respondents depicted respondents of balanced gender and departmental distribution in all the four universities. Majority of the students (54.5%) were pursuing their doctoral studies in institutions that offer the program by both course work and research while 40% were in research-based PhD program. Whereas majority (65.5%) were on full time employment, more than half of the respondents (50.9%) were also enrolled to full time doctoral study mode. Most of the students (92.7%) were Kenyan citizen who are self-sponsored with majority of their ages falling in the bracket 40 to 49 years. The strive to change employment to a better paying job was the main motivation for majority (61.8%) of the student respondents in pursuing their doctoral degrees. Most of the

students (41.8%) chose their institution based on affordability of fee while (40%) considered convenience and accessibility to the institution.

4.5 Demographic information of doctoral supervisors

This section gives the background information for the supervisor participants

4.5.1 Gender

The table that follows presents information on the gender of supervisor respondents

Table 4.12: Supervisor respondents' gender

	N	%	Mean	Std Dev
Male	16	50.0%		
Female	16	50.0%	1.50	.508
Total	**32**	**100.0%**		

Source: Research data (2022)

Statistics depicted an equal ratio of male to female supervisor respondents.

4.5.2 Supervisor respondents' department

Table 4.13 displays the distribution of supervisor respondents across the four departments.

Table 4.13: Departmental distribution of supervisor respondents

	N	%	Mean	Std Dev
Curriculum instruction and educational media	8	25.0%		
Educational psychology	7	21.9%		
Educational foundations	9	28.1%	2.53	1.135
Administration planning and management	8	25.0%		
Total	**32**	**100.0%**		

Source: Research data (2022)

There was almost equal distribution of supervisor respondents among the four education departments with the highest and lowest number of respondents ranging between 21.9% and 28.1%.

4.5.3 Age

The details of age distribution of supervisor respondents are presented in the table that follows

Table 4.14: Age distribution of supervisor respondents

	N	%	Mean	Std Dev
30-39 years	2	6.3%		
40-49 years	8	25.0%		
50 - 59 years	16	50.0%	3.81	.821
60 years and above	6	18.8%		
Total	**32**	**100.0%**		

Source: Research data (2022)

Whereas statistics showed that majority of the supervisor respondents (50.0%) were aged between 50-59 years, it also displayed a small representation of less than 10% of young supervisors whose age range between 30-39 years.

4.5.4 Experience in postgraduate supervision

Table 4.15 presents the duration of experiences of supervisor respondents.

Table 4.15: Supervisors' experience in doctoral supervision.

	N	%	Mean	Std Dev
0-5 years	5	15.6%		
6-10 years	20	62.5%		
11-15 years	5	15.6%	2.13	.751
Above 15 years	2	6.3%		
Total	**32**	**100.0%**		

Source: Research data (2022)

The majority of the supervisors had experience of between 6-10 years. Those with experience of 0-5 years and 11-15 years each represented 15.6% of the supervisor respondents. Those with experience of above 15 years were the minority.

4.5.5 Number of doctoral students supervised to completion

Table 4.16 presents the number of doctoral students supervised to completion by supervisor respondents.

Table 4.16: Number of doctoral students supervised to completion.

	N	%	Mean	Std dev
2-5 Students	14	43.8%	1.69	.693
6-9 Students	14	43.8%		
10 Students and above	4	12.5%		
Total	**32**	**100.0%**		

Source: Research data (2022)

Supervisor respondents who had supervised 6-9 and 2-5 doctoral students to completion had equal and highest number of respondents comprising each 43.8%. A few respondents had supervised greater or equal to 10 doctoral students to completion.

4.5.6 Terms of employment of supervisor respondents

The table 4.17 presents the terms of employment of supervisor respondents

Table 4.17: Terms of employment of supervisor respondents

	N	%	Mean	Std Dev
Permanent	27	84.4%	1.16	.369
Contract	5	15.6%		
Total	**32**	**100.0%**		

Source: Research data (2022)

Results illustrate that majority of the supervisor respondents (84.4%) were employed on a permanent basis whereas only 15.6% were on contract employment. Generally, the

demographic information of all supervisor respondents showed an equal distribution in terms of gender and a balanced departmental distribution. The age of the majority (50%) of the supervisor respondents ranged between 50-59 years with the minority (6.3%) aged between 30-39 years. Most of the supervisor respondents had doctoral supervision experience of 6-10 years while minority (6.3%) had experience of above 15 years. Majority (84.4%) of the supervisors were on permanent employment with most of them (43.8%) having supervised between 6-9 and 2-5 doctoral students to completion.

4.6 Quantitative and qualitative data presentation, analysis and interpretation

Data presentation, analysis and interpretation on the first research objective will be done in this section.

4.6.1 The preparedness of doctoral education students in the completion of doctoral dissertations

The first objective aimed at assessing the preparedness of education doctoral students for completion of doctoral dissertation. In order to address this research objective, the researcher analysed quantitative data gathered from semi-structured questionnaires administered to doctoral students and supervisors. A questionnaire with five-point Likert scale was used to gather quantitative data from both the doctoral students and the supervisors. The research first employed descriptive statistical analysis using a five-point Likert scale where: Very Small Extent (VSE)=1, Small Extent (SE)=2, Moderate Extent (ME)=3, Great Extent (GE)=4, Very Great Extent (VGE)=5 to answer the research question. The quantitative research results were displayed using frequencies, percentages, means and standard deviation (SD) for additional understanding. The qualitative data gathered from doctoral students' and supervisors' questionnaires were analysed thematically and presented under the following themes that were brought out

during analysis: *background research knowledge and skills, psychosocial preparedness, financial preparedness* and *doctoral student motivation to research tasks*.

4.6.2 Extent of doctoral students' preparedness for completion of doctoral dissertations

Table 4.18 presents percentages of respondents, means and standard deviations on the extent of doctoral students' preparedness for completion of doctoral dissertations on different aspects.

Table 4.18: Extent of doctoral students' preparedness for completion of doctoral dissertations

	VSE (%)	SE (%)	ME (%)	GE (%)	VGE (%)	Mean	Std Dev
Background research knowledge; reading widely on research	7.3	52.7	10.9	29.1	-	2.62	.991
Knowledge and skills on academic writing	16.4	58.2	12.7	12.7	-	2.22	.875
Writing skills matching doctoral studies	36.4	36.4	20.0	1.8	-	1.87	.817
Social skills; networking and connecting with other researchers	9.1	41.8	27.3	20.0	1.8	2.64	.969
Pro-activity; initiate and maintain communication with supervisors	14.5	50.9	18.2	14.5	1.8	2.38	.972
Promptness; reporting study progress to the department	32.7	49.1	9.1	7.3	1.8	1.91	.853
Independence; working to achieve set goals with minimum supervision.	7.3	65.5	16.4	10.9	-	2.31	.767
Financial preparation; paying study fees on time	47.3	29.1	3.6	1.8	-	2.30	2.826
Ability to meet research expenses	23.6	60.0	9.1	7.3	-	2.00	.793
Motivation to perform research tasks	12.7	56.4	21.8	9.1	-	2.27	.804
Flexibility; managing research dynamics and technological change	5.5	58.2	27.3	9.1	-	2.40	.735
Resilience during research challenges	16.4	52.7	27.3	3.6	-	2.18	.748
Innovation; devise ways of solving problems	10.9	56.4	25.5	7.3	-	2.29	.762
Digital skills for research writing	49.1	30.9	14.5	3.6	-	1.72	.856
Meeting deadlines when responding to supervisors' feedback	47.3	30.9	16.4	1.8	-	1.72	.818
Meeting submission deadlines	49.1	32.7	14.5	1.8	-	1.69	.797
Overall Mean and SD						**2.1575**	**0.9614**

Source: Research data (2022)

The analysis of doctoral student responses (Mean = 2.16, SD = 0.96) indicated that students generally felt poorly prepared for dissertation completion. Out of 16 questionnaire items, 12 reflected limited readiness in key areas such as background research knowledge, academic writing and publishing, and writing skills appropriate for doctoral studies. Students also reported low levels of preparedness in social and communication skills, including networking, proactiveness in engaging with supervisors, and promptness in reporting progress. Most students expressed challenges with research independence, difficulty in meeting research-related expenses, and maintaining motivation. Flexibility, resilience, and innovation were similarly rated low. Critical skills such as digital competence for dissertation writing, financial preparation, and meeting deadlines were reported to be developed to a very small extent. These findings reveal notable gaps in both academic and personal competencies required for successful dissertation completion.

4.6.3 Supervisors' perspective on the preparedness of doctoral education students in the completion of doctoral dissertations

Table 4.19 presents the results of respondent percentages, mean and standard deviation of supervisors' perspectives on doctoral students' preparedness.

Table 4.19: Supervisors' perspectives on doctoral students' preparedness

	VSE (%)	SE (%)	ME (%)	GE (%)	VGE (%)	Mean	Std dev
Background research knowledge; reading widely on research	34.4	-	34.4	28.1	3.1	3.00	.880
Knowledge and skills on academic writing	50.0	-	25.0	25.0	-	2.75	.842
Writing skills matching doctoral studies	21.9	37.5	28.1	9.4	3.1	2.26	.930
Social skills; networking and connecting with other researchers	3.1	18.8	59.4	18.8	-	2.94	.716
Pro-activity; initiate and maintain communication with supervisors	28.1	37.5	31.3	3.1	-	2.09	.856
Promptness; reporting study progress to the department	37.5	31.3	25.0	3.1	3.1	1.94	.892
Independence; working to achieve set goals with minimum supervision	25.0	43.8	25.0	6.3	-	2.13	.871
Financial preparation; paying study fees on time	40.6	56.3	3.1	-	-	1.63	.554
Ability to meet research expenses	25.0	68.8	3.1	3.1	-	1.84	.628
Motivation to perform research tasks	31.3	21.9	37.5	9.4	-	2.25	1.016
Flexibility; managing research dynamics and technological change	31.3	37.5	31.3	-	-	2.00	.803
Resilience during research challenges	28.1	37.5	31.3	3.1	-	2.09	.856
Innovation; devise ways of solving problems	21.9	43.8	34.4	-	-	2.13	.751
Digital skills for research writing	56.3	37.5	6.3	-	-	1.50	.622
Meeting deadlines when responding to supervisors' feedback	50.0	31.1	18.8	-	-	1.69	.780
Meeting submission deadlines	56.3	31.3	12.5	-	-	1.56	.716
Overall Mean and SD						**2.1125**	**0.7946**

Source: Research data (2022)

The analysis of supervisors' responses (Mean = 2.11, SD = 0.79) indicates that supervisors perceived that doctoral students were generally prepared to a small extent for completing their dissertations. Supervisors noted that students show very limited readiness in several critical areas. These include academic writing and publishing, digital research skills, promptness in reporting progress and the ability to meet deadlines when responding to feedback or submitting research work. For example, 56.3% of supervisors reported that students were poorly prepared in digital skills and in meeting submission deadlines, while 50.0% indicated limited preparedness in academic writing. Additionally, students were perceived to be inadequately prepared in essential soft skills such as proactive communication, flexibility, resilience, innovation and independence in research, with 37.5% to 43.8% of supervisors expressing concerns in these areas. Financial preparedness was also identified as a significant challenge, with up to 68.8% of supervisors indicating students struggled to meet research-related expenses. There were varied views on the extent to which doctoral students read widely on research topics in order to build their background research knowledge and skills. The majority (34.4%) of supervisor respondents noted that doctoral students had research knowledge to a very small extend and another 34.4% stated to a moderate extent. The mean (3.00) and SD (0.880) imply that doctoral students are moderately ready with background research knowledge. However, a moderate level of preparedness was observed in social skills, such as networking (59.4%), and in maintaining motivation amidst distractions (37.5%). These findings highlight substantial gaps in both academic and personal readiness, pointing to the need for comprehensive support systems in doctoral education.

4.6.4 Qualitative data analysis on the preparedness of doctoral students in the completion of doctoral dissertation

The researcher thematically analysed qualitative data from semi-structured questionnaires administered to doctoral students (*appendix i part iii*) and supervisors (*appendix iv part iii*), supervisors' focused group discussions (*appendix ii*) and interview data gathered from academic faculty administrators (*appendix iii*). Data was presented under the following themes that were brought out during the analysis; *background research knowledge and skills, psychosocial preparedness, financial preparedness and doctoral student motivation to research tasks.*

4.6.4.1 Background research knowledge and skills

The majority of doctoral students from universities C and D (those that offer doctoral studies by coursework and research) perceived that an education PhD with coursework is rigorous and gives a foundation to the research phase of the study. Acknowledging that the courses taught during course work are very relevant and prepares candidates for application in thesis writing participant ASC2 said *"if taken seriously by doctoral students, courses like 'research methods and proposal development' enables a student to understand and decide on what research approach, design and methods to use in their research writing".* Almost all student respondents from universities C and D concurred that they had been prepared for thesis writing by the courses they did before they embarked on the research phase of the study however, they raised concern that the research knowledge and skills acquired is lost if students delay to apply in their research writing and if they are not committed to reading widely. Most of the students from university A and B on the other hand explained that they applied limited research skills acquired during their master's study for PhD thesis writing although "*you have to supplement your research knowledge from master's studies with further reading and*

guidance by supervisors for you to succeed because if you took long to enrol for PhD from the time you completed masters somehow you will experience a challenge in research" participant DSF3.

The majority of student respondents across the four universities under study affirmed that doctoral students who enrol for their PhDs shortly after their master's studies are better placed in research knowledge and skills and are likely to complete their studies early, contrary to doctoral students who enrol long after their master's degrees. Almost all student respondents from all the four universities raised concern on the level of doctoral students' digital literacy and skills, arguing that as much as the skills are key to doctoral study completion most doctoral students get to the thesis writing phase of the study with insufficient practical skills to develop research instruments, organize and analyse data, affirming that participant CSP2 said that *"digital skills affects the ease at which students access, use and work on data and research resources for the completion of a PhD, if students are handicapped in digital skills, progressing to completion is difficult especially if one took a long break after completing masters study".* Expounding on students' digital literacy, participant BSP1 reiterated saying *"I am one of the many doctoral students who has experienced challenges in data analysis. I used other parties to analyse my data. It was expensive and I think it also compromised the quality of the results of my study. It has taken me a long time to correct it. Even using the online survey tools would be easy but without the digital skills it is difficult to manoeuvre through".*

It was also a common view amongst most student participants from the four universities that the journey to doctoral dissertation completion is lonely and demanding in terms of both time and resources and that completion on time calls for goal setting,

commitment, digital literacies and resilience at all times. Participant CSA2 said *"you know during coursework, time is allocated for each course and students interact create and share knowledge, they check on each other and lecturers meet and guide students either physically or online regularly, during thesis writing a student is isolated and busy with many other things, when one gets stuck, she can last that stage for long if not in communication with the supervisor"*. Most participants believed that the masters research knowledge and skills fairly prepared them for PhD research phase though not sufficient enough for PhD level where students explore different research designs from the ones they used in their previous studies. Most respondents pointed that prior academic preparation is a major factor in doctoral persistence. Expressing her experience respondent ASP1said *"I had a good level of preparedness from my masters... during my first year of PhD study, we had an induction workshop on research, this I must say greatly boosted my research knowledge and skills. However, you can never have sufficient knowledge in the doctoral journey but we doctoral students should immerse ourselves into deeper reading at the point of need in order to get research skills which doctoral students do not find time to do due to other competing non-academic commitments".* Another respondent DSC1shared his experience saying *"the level of preparedness by the time I commenced my thesis writing was excellent because, research methods were taught during semester one and two as advanced research methods. By the time I embarked on writing my thesis I was prepared, I had the knowledge skills and content required".*

The responses of majority of the supervisors concerning the doctoral students' background knowledge were congruent to the views of the doctoral students. Most of the supervisors highlighted that background research knowledge of doctoral students is fundamental to study progress, they attested that students with a strong research

foundation stay focused and work independently towards completion unlike their counterparts who are more likely to give up and abandon the study or take considerably a long duration to complete their studies. Majority of the supervisors from university C and D also noted that there is a missing link between the knowledge acquired during coursework and application of it in carrying out research, many doctoral students fail to balance the time taken to develop a proposal, collect data from the field and writing the dissertation with most of them defending their proposals very late close to the end of the expected completion year of the degree. Respondent ALC1 said, *"Many students do very well in course work and even score good grades but as soon as they complete it and begin research, they fail to apply the knowledge to develop their research, most of those who finish course work without a topic or an area of study in mind stagnate for many years"*. According to most of the supervisors, majority of doctoral students take long to construct and administer their research tools consequently causing delay in data collection, analysis and eventually delay to complete the dissertation.

The views of most of the supervisors across all the four universities concerning the length of duration between completion of a master's degree and start of a PhD by students was similar to that of doctoral students, that PhD candidates who enrol for their doctoral studies immediately after their master's degree are better placed in terms of research knowledge and skills and progress faster to study completion. Majority of the supervisors rated most of the doctoral students to be fairly prepared with research knowledge and skills for dissertation completion however they pointed that a doctoral journey is a process that require continuous effective preparation through studying and consulting at each stage, a demand that most students fail to maintain because of other work and family responsibilities as well as social involvement. A respondent BLF1 said; *"Prerequisite knowledge is crucial as it helps the student to identify a manageable*

topic; do research with minimum supervisorial support; access the right and relevant research resources with ease. It also gives the student confidence to face their work however supervisors should continue to nurture the doctoral students by guiding and equipping them with research knowledge and skills."

4.6.4.2 Psychosocial preparedness

From the semi-structured questionnaire (*appendix I part iii*) majority of doctoral students pointed out that thesis writing phase of a doctoral study is critical and requires focus and coherence but more often doctoral students experience a lot of interruptions from psychosocial issues which derail completion on time. Most doctoral students listed a number of psychosocial issues that frequently affect PhD students as; lack of social support from faculty members, unconducive family and work environment, health and mental issues, lack of resilience, anxiety and other competing responsibilities. Affirming to this participant ASF2 claimed that *"issues are many, sometimes as a student you may get sick or a close kin member becomes ill with a terminal sickness causing anxiety and frustration, the nature of your job may also engage you to an extent that you cannot get time to concentrate on your research. If one does not develop resilience, one gets mental disturbance that even worsens the situation*". A few students from across the four universities cited lack of social support from some supervisors; who do not follow up on the students' progress, do not communicate nor give feedback whenever a student try to get in touch for guidance. A few students shared that progress in doctoral studies may be derailed by experiences of frustration and lack of support from family members and workplace superiors who sabotage all efforts of progress in their studies. Almost all students cited responsibilities at work place and lack of resilience to continue during research challenging times to be the leading cause of delay in doctoral dissertation completion and cause of dropout. Majority of the students

expressed difficulty in balancing the job and study demands consequently, students end up slowing down and even some giving up and dropping out completely at the dissertation stage. All doctoral students working on permanent terms across the four universities under study stated that most of the time their output to the study is minimized by work commitments to an extent that they cannot meet the deadlines of the research assignments from their supervisors. Another respondent ASF2 claimed that work responsibilities at the place of work is the cause of delay in study completion saying *"my subject is understaffed in my school, my work load is very high, I am always occupied with these lessons and other administrative responsibilities and find no sufficient time to focus on my research. My boss did not recommend my application for a study leave. This has really paralysed my dream to complete this dissertation"*.

Most of the students expressed their disappointment at times when they experience a research challenge and their supervisors fail to come in and advice, stating that they get stuck and delay in completion. Respondent CSC2 said that; *"There is also something on liminality stage (liminal) sometimes a student gets stuck, runs out of ideas completely. You are told that the statement of the problem is not clear but the supervisor is offering no guidance and the student gets stuck and disoriented. It is a very dangerous stage that can make a student discouraged for months"*. Expounding on the issue of job commitment, participant ASF2 also added that; "*The nature of my work being a teacher is preparing for lessons, teaching and marking students' work from 8.00am to 5.00pm in the evening, besides these there are other school responsibilities such as training clubs and coaching cocurricular activities which are mandatory for a teacher. These activities leave one with no more energy and time to concentrate on the study in the day apart from only the weekends which are also full of school events most of the time"*.

A few students cited delay in completion of study as a result of some supervisors or close kin facing psychosocial issues such as chronic illnesses and family challenges that limit productive student supervisor interaction and guidance. DSP2 attested that;

> *"The dissertation phase is like the first steps of a baby walk; you try moving but sometimes you fall and not unless you keep falling and pulling yourself up again for another trial you will never complete. It requires a peaceful mind and independence despite a lot of distraction from the environment at home, work and society".*

From a semi-structured questionnaire (*appendix iv part iii*) a supervisor CLC2 also expressed concern on the quality of supervision when a supervisor is overwhelmed with psychosocial issues saying *"supervisors may also experience mental health issues that constrain effective supervision causing delay in completion of dissertation writing".*

The interview conducted (*appendix iii*) revealed that a majority of academic administrators from all the universities under study on the other hand claimed that most doctoral students are on full time study mode at the same time on full time jobs, most of the time they are held up by work responsibilities and finds very little time for research. It was also outlined by majority of heads of departments and deans that most doctoral students are not independent and do not keep in touch with their supervisors whenever they have challenges. According to majority of the supervisors, most doctoral students are not open to their advisors and lack motivation in completing research tasks. A dean in university C affirmed saying "*Most of our doctoral students are teachers by profession, when they are not on study leave, they are too busy teaching in their schools and if they do not sacrifice and create time for research, completing study assignments will be in vain".* A few supervisors cited doctoral students' 'working blindly' without setting goals to be achieved and their timelines. Most supervisors of university A pointed that the number of post graduate students a supervisor is assigned in the department to supervise is overwhelming to an extent that students who are not

proactive and independent drag in their progress. Head of department of educational foundations in university A interviewed (*appendix iii*) said that *"Supervisors are assigned a number of post graduate students to supervise in addition to teaching classes and other administrative work, this occupies the faculty members most of the time such that only doctoral students who are intrinsically motivated and proactive progress faster than those who wait for a call from their supervisors".* They all agreed that most doctoral students do not have the initiative to maintain communication with their supervisors concerning their progress and challenges.

4.6.4.3 Financial preparedness

From the semi-structured questionnaire (*appendix i part iii*), most of the student respondents in the four universities argued that fees and research costs of doctoral studies are expensive to self-sponsoring students whom majority are teachers with low pay. Majority of the students claimed that at the time of enrolment, they had plans on how to pay their fees by instalments from savings and loans but due to other competing needs, other arising responsibilities and low income, they end up facing financial challenges during research phase of the study which consequently leads to failure to successfully complete field work and complete their research work on time.

Almost all the doctoral student respondents pointed that dissertation phase of research has more expenses such as; development of research instruments, travel expenses while collecting data where applicable, data collection equipment, data analysis and other hidden expenses like publishing which can compromise the quality of research if not addressed. Most of the student participants' responses portrayed the aspect of financial constrains; majority claimed that some publishing firms are very expensive to publish with and yet policy requires that a doctoral student must publish two articles with peer

reviewed journal before they graduate for their doctorate degree. Almost all the doctoral students in the four universities stated that their institutions do not allow students to defend their thesis with fees arrears, this as well makes students to relax on dissertation development knowing that they are coupled with a challenge of completing fee payments. Citing doctoral students' financial constrains respondent BSA2 said *"Many students battle to finance doctoral studies with little pay; fees are high not withstanding data collection and analysis expenses. In addition, high publishing fee in many publishing institutions further increases the cost"* Supporting the issue of financial demands another student participant CSC3 reiterated that; "*I did an experimental study that required an intervention to experimental group for some time, I spent a lot of resources that after collecting data I was not able to pay fees on time. Research can exhaust a student's finances causing delay in completion".*

The results from the semi-structured questionnaire (*appendix iv*) revealed that the supervisors' views on the students' affordability of research fees and other expenses were not different from the students' views, most of the supervisors attested that doctoral research is costly to self-sponsored students, majority of whom are teachers earning little income with other financial responsibilities. Most supervisors agreed that financing PhD research is a factor of completion, some heads of departments claimed that outstanding fee arrears may cause doctoral students not to submit or defend their dissertation. A supervisor from the department of psychology in university D attested in the focus group discussion that *"one of my students could not defend her thesis on time last year because she owed the university so much money. Insufficient funds to pay fees and meet research expenses discourages students from meeting set schedules such as thesis submission, oral presentation of thesis and publishing which is a university policy requirement for completion in most of the higher institutions"* the

above students' and supervisors' views imply that students experience financial constraints and require support.

4.6.4.4 Doctoral student motivation to research tasks

From the semi-structured questionnaire (*appendix I part iii*), the majority of the doctoral students from the four universities opined that the energy to move on and make progress at every stage of doctoral dissertation writing despite the challenges makes a difference in completion of doctoral studies. According to most students, motivation compels one to complete research assignments given in time and respond to the supervisor's advice accordingly. A few student respondents said that they are fairly motivated at the beginning however; their motivation is not consistent throughout the study. The majority of the student respondents in the current study were government employed teachers who claimed that their employer does not recognize a post-graduate degree for promotion and thus most doctoral students attested to have begun the study with a motivation to attain a doctorate qualification in order to change employment for a better paying job.

Most students from all the universities agreed that those who are not employed at the time of study are more motivated by their expectation of getting a job and earning a better living upon study completion. Majority of the students expressed that supervisors' expectation that students are always focused is not true and laments that most supervisors do not set timelines for tasks assigned and feedback to their students and consequently due to other work pressures, students fail to prioritize their responses and feedback leading to delay. All students also noted that a formal structure of supervision is not implemented and follow up on doctoral students' progress is minimal i.e., majority of the students attested that most of the times neither the doctoral students

nor the supervisors are able to meet their deadlines while giving feedback in the supervision process and the department may not know. Respondent ASC4 expressed her view saying *"After coursework we are left on our own as in; you just know the course has to end after three years, but as to when my proposal should be ready, when my fieldwork should be completed, when I should be submitting for examination etc., is left for student hyperactivity. Sometimes a student gets stuck for months, I think if the supervisor and the department tracked the student progress at all times, the student is motivated and early completion may be realized".*

Most of the doctoral students who are also employees of the universities pointed out that they are motivated by the ultimate goal of a promotion and pay rise that will come with the doctorate qualification however, they lamented that other job responsibilities occupy a lot of their time leaving them with little or even no time for their research. For a few other doctoral students working for the university under contract terms of employment, they attributed their motivation to a threat of losing their employment if the degree is not achieved within the given timelines as per the contract agreement. Respondent CSP1shared her experiences that; *"As for me, what drives me to struggle to complete this study is because I signed a contract with the university and I might lose the job if I don't complete the study before the contract ends. Many of my colleagues also struggle to finish their studies in order to get promotions and so… I am the one giving pressure to my supervisors and many times I get disappointed when I don't get feedback on time or when I am assigned too much work that consumes most of my research time at place of work".*

The results from the individual interviews (*appendix iii*) and semi-structured questionnaire (*appendix iv part iii*) highlighted that supervisors' and students' views on

motivation to dissertation progress were consistent nevertheless in addition, most faculty members commented that the need for timely completion calls for motivation of faculty members through a better renumeration, supervision facilitation, balancing workload and conducive working environment. A majority of the supervisors and the heads of departments proposed that teaching workload of the postgraduate supervisors should be manageable to give them time for career development, supervision and to give feedback on time. Emphasizing that, a supervisor respondent from educational foundations in university A explained that *"sometimes you go out of your way to help a student at your cost because the university is unable to facilitate. High number of teaching units and exam marking is also overwhelming deterring supervisors from giving efficient guidance to doctoral students".* Respondent; BSA2 also said that "*The university does not implement formal designed structure or framework of supervision where the supervision communication between the student and supervisor can be tracked for progress. A student or the supervisor needs to take responsibility for the delay in completion of the study. Or a policy where a penalty of payment is met where a student delays on his or her side without a reason; but where there is a reason, a student has a right to deferment".*

The research results imply that both doctoral students and supervisors lack motivation. Most supervisors have high workload causing inefficient supervision, facilitation of supervision is also poor and the supervisors are supervising students whose motivation to the study is inconsistent.

4.6.5 Discussion of findings

On comparing quantitative and qualitative results of doctoral students and supervisors, the majority of the respondents perceived that doctoral students are prepared for

completion of doctoral dissertation to a small extent. Doctoral students highlighted that dissertation writing phase of a doctoral study is a lonely journey. This was in line with the finding of Lake et al. (2018) who pointed out unclear expectations and feelings of isolation amongst doctoral students as hindrances to progress and degree completion. In addition, Wilson and Cutri, (2019) supports the notion stating that academic lifecycle for PhD students can be a journey of loneliness which arouse feelings of insecurity and isolation.

The results established that doctoral students have inadequate research skills. Both supervisor and student respondents showed concern on the poor research background of doctoral students suggesting the need for continuous training, this is in agreement with the views of Wilson & Cutri (2019) who notes that many researchers experience scholarly writing-related anxiety, a struggle that can be compounded by lack of explicit training in writing. Most participants believed that the master's research knowledge and skills fairly prepare doctoral students for PhD research phase though not sufficient for PhD level where students explore different research designs. This is supported by the views of Herman (2011) and Kyvik & Olsen (2014) who cited poor research skills of doctoral candidates as a critical reason for candidates' failure to timely complete their doctoral degrees. Prior academic preparation is a major factor in doctoral persistence, this notion is supported by Weidman et al. (2001) graduate socialization framework which points that socialization in graduate school is the process of gaining knowledge, skills and values essential for success in a career demanding a higher level of specialised knowledge. According to Hadi & Muhammad (2019), successful completion of doctoral research and performance is influenced by students' personal characteristics such as their competencies in learning research skills, as well as their motivation towards accomplishments and completion of the research project. Studies

by Matheka et al. (2020) and Momanyi (2022) which points that completion of doctoral dissertation is a factor of teaching methodologies, knowledge content, learning environment and outcomes and research knowledge, skills and attitudes is congruent with the respondents concerns on weak research background as a cause to delay in completion.

The students' expression of weak support system from faculty as a cause of delay in completion is supported by Leijen et al., (2016) who suggests that a slow progress in dissertation writing is attributed to poor communication link between doctoral students and the broader university community. The students' concerns on faculty support also concurs with the views of Howells et al. (2017) and Odena & Burgess (2015) who identify heavy workloads, diverse student culture and background and complex student supervisor relationship as the main challenges currently faced by supervisors in an attempt to support doctoral students in competitive university sector. All the study respondents were in agreement that doctoral student face a lot of financial challenge when it comes to meeting costs of data collection data analysis and the course fees. This is congruent to the views of Barasa & Omulando (2018), who cite students' personal life and work, circumstances and funding constraints as the cause of low completion rates in doctoral studies.

It was clear that motivation of both doctoral students and supervisors is to a small extent, a notion that was supported by the findings of Hadi & Muhammad (2019) who points that successful completion and performance of a doctoral dissertation is influenced by student motivation towards accomplishments and completion of the research project. It is also in agreement with the findings of Offerman (2011) who points that the reasons that compel a candidate to pursue a doctoral degree are

significant factors to persistence and completion. According to Bain et al., (2011), Holly & Gardner, (2012) and Bégin & Gérard, (2013) the desire for development, self-improvement, learning, better employment opportunities, improved quality of life, and achievement are the most effective motivation.

4.7 Doctoral students' access to and use of research resources for the completion of doctoral dissertation

The second objective aimed at exploring doctoral students' access to and use of research resources for completion of doctoral dissertation. In order to answer this research question, the researcher analysed quantitative and qualitative data gathered from semi-structured questionnaires administered to doctoral students and supervisors, qualitative data from supervisors' focus group discussions and interview data from academic faculty administrators. The research employed descriptive statistical analysis using a five-point Likert scale where: Very Small Extent (VSE)=1, Small Extent (SE)=2, Moderate Extent (ME)=3, Great Extent (GE)=4, Very Great Extent (VGE)=5 to answer the research question. Percentage of respondents, mean and standard deviation (SD) was used to present quantitative data.

4.7.1 Doctoral students' extent of access to and use of research resources for the completion of doctoral dissertation

Table 4.20 presents the extent to which doctoral students can access and use research learning resources for the completion of dissertation.

Table 4.20: Doctoral students' extent of access and use of research resources for the completion of dissertation.

	VSE (%)	SE (%)	ME (%)	GE (%)	VGE (%)	Mean	Std Dev
Availability of current hard copy research publications in the library	20.0	56.4	16.4	7.3	-	2.11	.809
Accessibility of current hard copy research publications in the library	23.6	45.5	29.1	1.8	-	2.09	.776
Availability of current electronic research publications in the library	18.2	54.5	10.9	14.5	1.8	2.22	.925
Accessibility of current electronic research publications in the library	16.4	38.2	30.9	14.5	-	2.44	.938
Access to the university repository	9.1	20.0	27.3	43.6	-	3.05	1.008
Student-faculty mentorship link during research	20.0	36.4	29.1	14.5	-	2.38	.972
Student-peer mentorship link during research	40.0	29.1	18.2	12.7	-	2.04	1.053
Presence of university Organized research activities	60.0	34.5	3.6	1.85	-	1.47	.663
Active student participation in organized research activities	74.5	21.8	3.6	-	-	1.29	.533
Active participation in interactive learning platforms	56.4	25.5	12.7	5.5	-	1.67	.904
Exchange programme opportunities for students	56.4	40.0	3.6	-	-	1.47	.573
Presence of collaborative supervision	45.5	20.0	29.1	5.5	-	1.95	.989
Regular capacity building for supervisors	52.7	30.9	14.5	1.8	-	1.65	.799
Overall Mean and SD						**1.9869**	**0.8417**

Source: Research data (2022)

The analysis of doctoral student responses (mean= 1.9869, SD= 0.8417) indicates that doctoral students generally experience challenges in accessing and using research resources for the completion of dissertation. Doctoral students expressed inadequacy in accessing and using of current hard copy and electronic publications in their libraries

with 38.2% to 56.4% of the responses showing concern in these areas. Majority of the students noted that mentorship between doctoral students and supervisors as well as between doctoral students and their peers is weak. Additionally, students perceived that opportunities for research such as workshops, seminars and conferences were rarely organised and students were involved to a very small extent. Respondents also noted that exchange program opportunities for students were under explored in their institutions, collaborative supervision is not well established and doctoral candidates did not actively participate in interactive learning platforms such as university alumni networks, research sites and e-learning portals. Up to 52.7% of the respondents showed concern on limited capacity building for supervisors in their institutions. However, respondents perceived that doctoral students accessed university repository site for research resources to a great extent. These findings depict access and use of research resources by doctoral students to a small extent, a situation that necessitates improvement of research infrastructure in universities in order to boost early completion of doctoral dissertations.

4.7.2 Perspective of supervisors on doctoral students' access to and use of research resources for completion of doctoral dissertation

Information on the supervisors' perspectives on doctoral students' access to and use of research resources is presented in table 4.21

Table 4.21: Supervisors' perspectives on doctoral students' access to and use of research resources

	VSE (%)	SE (%)	ME (%)	GE (%)	VGE (%)	Mean	Std dev
Availability of current hard copy research books and publications in the library	6.3	31.3	31.3	31.3	-	2.88	.942
Accessibility of current hard copy research books and publications in the library	6.3	62.5	18.8	12.5	-	2.38	.793
Availability of current electronic research resources in the library	53.1	28.1	18.8	-	-	2.66	.787
Accessibility of current electronic research resources in the library	9.4	43.8	28.1	18.8	-	2.56	.914
Access to the university repository	28.1	43.8	28.1	-	-	3.00	.762
Student-faculty mentorship link during research	28.1	62.5	9.4	-	-	1.81	.592
Student-peer mentorship link during research	34.4	62.5	3.1	-	-	1.69	.535
Presence of university Organized research activities	34.4	59.4	6.3	-	-	1.72	.581
Active student participation in organized research activities	65.6	31.3	3.1	-	-	1.38	.554
Active participation in interactive learning platforms	43.8	31.3	15.6	6.3	3.1	1.84	.934
Exchange programme opportunities for students	37.5	56.3	6.3	-	-	1.69	.592
Presence of collaborative supervision	15.6	37.5	25.0	15.6	6.3	2.43	.971
Regular capacity building for supervisors	40.6	28.1	28.1	3.1	-	1.94	.941
Overall mean and SD						**2.1523**	**0.7614**

Source: Research data (2022)

The results of respondents' perspectives on the extent of doctoral students' access to and use of research resources (mean= 2.1523, SD= 0.7614) reveals that supervisors perceived that doctoral students experience challenges in critical areas related to the access and use of research resources for the completion of their dissertation. Respondents had varied views on availability of current hard copy research resources

with 31.3% stating availability to a small extent, a moderate extent and a great extent. The mean of 2.88 and SD of 0.942 suggest that the hard copy research resources are available in the library to a moderate extent however, access to the hard copy research resources was to a small extent. In addition, availability and accessibility of electronic research resources was also rated low. Majority of the respondents 59.4% highlighted that limited research activities such as workshops, seminars and conferences were organized; and 65.6% cited a challenge of poor student participation whenever there were opportunities. Supervisors perceived that doctoral students struggled to access the university repository for research learning and participation in interactive learning platforms such as alumni networks was to a very small extent. Most respondents (40.6%) also pointed that there are notable gaps in capacity building for supervisors pointing to inadequacy in mentorship of doctoral students by faculty members and peers. These findings reveal that supervisors perceived that doctoral students experience limited access and use of research resources for completion of doctoral dissertation.

4.7.3 Qualitative data analysis on doctoral students' access to and use of research resources for completion of doctoral dissertation

Qualitative data from doctoral students and supervisors' questionnaires were analysed thematically and the following themes were formed; *Limited digital skills, insufficient research resources and inadequate student mentorship.*

4.7.3.1 Limited digital skills

This theme is presented under the codes: *Challenges of resource accessibility* and *poor skills in data analysis.*

4.7.3.1.1 Challenges of resource accessibility

All the respondents concurred in their views that access and use of research learning resources is a factor of doctoral study completion. Majority of the doctoral students said to be carrying out their study research off campus because they were on full time employment and mostly relied on online reading resources and library services. Supporting the issue of limited e-resources, a majority of students stated that their libraries subscribe to limited research sources. A respondent BSA1 stated that; *"There are many sources for research but they are not free. University subscribes to a few; some can be accessed through other institutions and organizations but many students do not know how".* Most doctoral students appreciate open access research sources as good however, they pointed that majority of the doctoral students do not have sufficient digital skills and are ignorant on the sites to visit for open access and thus use the ones available although not sufficient for their research. Most students mentioned that they struggle searching for reading resources either because of insufficient searching skills or uninformed on the sites to access specific academic resources. Expressing his concern, respondent DSP2 said that; "*in most cases, as students we are assumed to be knowing how to search for relevant research sources and yet it is not true. I struggled with technological skills at the same time did not know places to get these sources".* Another respondent DSA2 added that "*Many PhD students have a problem locating relevant reading resources for their field of study even if sometimes they are found in the university because they are not keen to register with institutions' E-learning resources".*

Majority of the doctoral students pointed that universities assume that most doctoral students are in a position to acquire these digital skills during thesis writing on their own, an assumption that almost all doctoral students disagreed with proposing that there

is need for doctoral students' training on critical research skills to be integrated in post graduate studies and continuous workshops and seminars for support.

Supervisors' views concerning the access to research information by doctoral students concurred with the students' views however the supervisors attributed the students' ignorance on research information sites to lack of student motivation and high student dependence on supervisors. A supervisor from university C department of educational foundations said that; *"...many students are not committed to their research work. If they were motivated, they would not be too much dependent on their advisers, learning through experience is also important".*

The participants' responses above illustrates that most doctoral students experience challenges in accessing research resources partly because of poor searching skills and unfamiliarity to resource sites. Inadequacy in these technological skills could hinder the progress of doctoral dissertation.

4.7.3.1.2 Poor skills in data analysis

Student participants raised concern on the proficiency in using computer software for data collection and analysis, majority stated that students find difficulty in analysis of their data as a result of poor skills in application of the software required for data analysis. Insufficient skills according to the students' negatively affects the quality of the research out-put and duration to completion of the dissertation. A respondent CSF3 said; "*collection of data and analysis is crucial, lack of skills in using statistical analysis software and other computer applications is detrimental to the dissertation and here is where we get stuck…".* Another respondent *BSP2* said that; *"Data analysis and presentation is challenging it is a process of back and forth before one settle. Analysis*

techniques are many and at times the ones you plan for may not work and you have to consult widely and learn new skills".

The participants' responses above implies that doctoral students' progress is hampered by insufficient data analytical skills. The respondents verbatims describe that doctoral students struggle in order to achieve basic analysis skills for the research causing delay in completion. Supervisors also pointed that doctoral students lack skills in the use of critical research software such as referencing software, analysis techniques and the use of statistical software such as SPSS, Stata and others pointing that there is need for higher education institution to organize workshops and training of postgraduate students on access and use of research resources in order to reduce time to completion of doctorate dissertation.

4.7.3.2 Insufficient research resources

Most of the students in all the four universities pointed that the current e- resources subscribed to by their institutions in different fields which can be accessed by students both at campus and remotely whenever they want, are inadequate. A respondent CSC2 expressed his concerns that, "*Research resources are scarce in my university library and the few available are old some inaccessible to many students due to insufficient user education, lack of information, poor retrieval skills and poor digital literacy. These extends degree completion time…".*

Almost all doctoral students emphasized the need for universities to invest in recent electronic research resources which are highly in use by most students as opposed to hard copy books in the library. Majority of the students also claimed that most students are not formally guided by the institutions on the accredited peer reviewed publishers to publish their research and yet it is a requirement for doctoral students to publish two

articles before completion of a doctoral degree. Few students attested to have been deceived by unaccredited publishers to publish low quality papers expensively. Respondent DSP1 said; *"you know in most cases when you submit your work you must also have evidence of publications, and so some students rush to whoever agrees to publish the work with minimal corrections within the shortest time possible and that is how doctoral students fall prey to predatory publishers without guidance".*

The above responses suggests that universities investment in research resources do not meet the needs of the doctoral students and as a result contributes to delay in doctoral degree completion. It also illustrates that doctoral students need to be guided on how to publish their research with credible publishers.

4.7.3.3 Inadequate student mentorship

The aspect of students' interactive forums was brought out strongly as a factor of study completion. A majority of doctoral students and supervisors pointed that students' interactive forums such as seminars, colloquiums, workshops, alumni networks and conferences mentor and prepare doctoral students for thesis completion. Most students and supervisors from all the four universities asserted that these forums enable students and faculty members to share their research knowledge and skills, study experiences, challenges, peer guide and mentorship however most universities do not organize such forums more often due to inadequate finances. All students and majority of the supervisors opined that universities should schedule regular seminars and conferences for research sharing as this motivates students to progress. Most doctoral students from all the universities argued that their universities rarely organize conferences and seminars to boost student sharing of research ideas and publish their research, participant DSF2 affirmed this saying *"I have not presented any paper nor listened to*

seminal presentations since I enrolled for the study, the faculty is quiet about the seminars, workshops or conference in our school, as students we are left to struggle on our own," most of the doctoral student respondents from university A and B acknowledged that their institutions occasionally hold conferences but expressed a concern that when they do the charges are very high such that it limits participation by most students.

Majority of students and supervisors pointed that networking and exchange programs with other universities have not been explored in their universities although most of them appreciated that these are research avenues that may bring about doctoral student advancement in research skills and study progress. There was a consensus among all students that research forums including active alumni networks and alumni events challenge and motivate doctoral students towards completion of dissertation. Respondent BSA2 affirmed saying; *"Students' forums provide necessary support structures that post-graduate students need for motivation to keep working on their thesis no matter the challenges. It also provides a community of practice that the students can draw on to help in various aspects of their research".*

Most of the doctoral students also pointed that there is a weak link between doctoral students and their peers as well as with faculty members during dissertation writing that makes the doctoral journey to be very isolated and lonely. In the FGD, a supervisor from the department of curriculum in university A said: "*the problem is that most students do not connect to their supervisors and peers for mentorship during research. You find that a student is confused on how to go about something but fails to consult on time.*" Power difference between students and supervisors was also brought out clearly by a supervisor from the department of psychology saying: *"Another issue is that some supervisors are harsh and unapproachable, this instils fear and anxiety to doctoral*

students and result to minimal collaboration and progress in dissertation writing". (DLP2).

The above responses from participants depicts a situation of weak doctoral student mentorship in the universities, less interactive research activities and a weak link between students and members of the faculty. These issues based on the views of participants makes a doctoral dissertation writing process unmotivating, isolated and results to slow pace to completion.

4.7.4 Discussion of findings

In general, student and supervisor respondents concurred in their views that access and use of research learning resources is a factor of doctoral study completion however, it was clear that in all the participating universities libraries subscribe to limited research sources. Respondents also expressed the students' limitation in literature searching skills arguing that most students have limited skills and are ignorant on the sites to access specific academic resources. This argument is supported by Kumar & Aitchison (2018) who points that recent literature concur that the success of doctoral candidates is largely based on the acquired writing skills however, there is no consensus yet as to how best such expertise can be achieved. Kyvik & Olsen (2014) and Ampaw & Jaeger (2012) support the claim that writing skills is critical to doctoral persistence. All the respondents proposed that there is need to integrate continuous training of doctoral students on critical research skills through workshops and seminars for support. Supervisors on the other had attributed the students' ignorance on research information sources to lack of student motivation and student over-dependence on supervisors.

The results also show that doctoral students' progress is hampered by insufficient technological and basic analytical skills. This concurs with the findings of Bell (2021)

who points that digital literacy needs of research students are complex however, Jisc, (2020) states that above all else researchers require specialized technological training, support, access and application to appropriate software to enhance their digital capabilities. Digital training at appropriate research life-cycle in areas such as research methods, research data management, and data analysis according to Jisc increases the productivity of researcher. Research skills such as IT skills, time management and organisational skills, and access to and competence with technologies in research according to Lindsay (2015) are often associated with positive outcomes and study completion.

The aspect of students' interactive forums such as seminars, colloquiums, workshops, alumni networks and conferences was brought out strongly by all the respondents as a factor of study completion. This is supported by Obeng-Ofori, & Kwarteng (2021) and Kumar (2008) who coined that collaborations, partnership and engagement among the scholarly community and alumni mentorship foster unity of purpose and improve the intellectual and social experiences of doctoral students in the institution. The students' perspective of low interaction forums is in line with the views of Tinto's (1975) theory of social and academic integration which recognizes the critical need for college students to connect to the various social and academic components of an institution in order to persist to completion. Doctoral students and supervisors from all the four universities asserted that research interactive forums facilitate sharing research knowledge and skills, study experiences, challenges, peer guidance and mentorship a notion that is congruent to the opine of Holmes et al. (2014), Jairam & Kahl (2012) and Stubb, Pyhalto, & Lonka (2011) however, most universities do not organize such forums more often due to inadequate finances. Respondents advocate that universities

should allocate more funds to facilitate research activities that consequently boost early completion of doctoral dissertation.

4.8 Perceptions of doctoral education administrators on the completion of doctoral dissertations

Administrators in the faculty of education which include the dean and the heads of departments are responsible for all academic activities including research and implementation of institutional policies, rules and guidelines that govern post graduate studies. In order to answer the third research question, qualitative data from individual interviews of heads of the four departments and post-graduate dean of each of the four universities were thematically analysed and the following themes were generated; *Inadequate research opportunities, inadequate capacity building, poor facilitation of supervision practice and supervision inhibiting factors.*

Table 4.22: Summary of the findings addressing the third research question

Themes	Codes
Inadequate research opportunities	Limited research forums Alumni research collaborations
Inadequate capacity building	Limited supervisor trainings Networking and collaboration
Poor facilitation of supervision practice	Weak supervisor support system Student support Inadequate research infrastructure
Supervision inhibiting factors	Shortage of doctoral supervisors High supervisor workload Student engagement in other obligations

4.8.1 Theme 1: Inadequate research opportunities

Two codes: *limited research forums* and *alumni research collaborations* are presented under this theme.

4.8.1.1 Limited research forums

From the individual interviews of administrators (*appendix iii*), the aspect of minimal doctoral student engagement in academic activities such as workshops seminars and conferences was brought out strongly by nearly all administrators from the four universities, stating that despite the importance of the activities in research mentorship and boosting completion of post-graduate studies, these research forums are not regularly organized by their institutions citing financial constraints.

Most administrator respondents also stated that majority of the doctoral students are full time employees who hardly find time for academic writing, preparation and participation in research activities whenever there are opportunities. There was also a consensus by most administrator participants from all the four universities that most doctoral students have inadequate academic writing skills which compromises completion of dissertation and also limits their skill in publication and research engagements stating that these skills would be improved in research conferences, workshops and seminars.

> *"My university is facing financial crisis that has consequently interfered with organization of research activities such as conferences, workshops and seminars that require funding. Many students in dissertation stage of a doctoral study find it as unmotivating phase especially when active research forums are limited".* (Head of educational Foundation department, university D).
>
> *Our university is currently having a challenge of resources, if anything workshops, seminars and conferences are not even priority and yet research output should be the key role of the university, this has made the doctoral study journey lonelier to students and progress very slow* (Head of educational curriculum department, university A).

> *"Most of our doctoral students are not equipped with research and scientific skills. I have witnessed two doctoral students locked out of thesis defence because their papers had issues and were not accepted for publishing and the policy demands acceptance or publication of papers in an accredited journal before defence. This therefore means students ability to write papers in journals determines how fast they can complete the study"* (Head of educational Psychology department, university C).

From the respondents' quotations above, it is clear that limited research forums is a common experience that deter progress in dissertation writing as it limits the researchers' interaction and acquisition of research skills.

4.8.1.2 Alumni research collaborations

From the interviews (*appendix iii*) most respondents highlighted that their institutions have dormant alumni associations. They pointed that engagement of alumni in research activities has not been prioritized yet it could be used as strong mentorship forums in which those who have graduated in various levels including doctorate degrees could give back to the universities through motivation and mentorship of continuing students for timely completion. Respondents also highlighted that an active alumni association may have an endowment fund used to facilitate research activities such as workshops and conferences which would enable doctorate students to share knowledge and experiences. Respondents expressed their views saying;

> *"Our university alumni association is inactive. If this association could be activated and used as a research opportunity among other engagements, PhD students could benefit from peer and graduate mentorship"* (HOD educational foundations university B)

> *"...vibrant alumni associations have an alumni endowment fund which at times finance conferences, and other research activities but in this university, students finish and they are not actively engaged any longer"* (HOD educational Psychology university D)

> *"Alumni events can be organised so that former students share their experiences and expectations to continuing students and in so doing they are modelling to them as a motivation to complete their*

> *dissertation. but that… we have not achieved yet* here" (HOD educational Psychology university A)

The participant's responses from the individual interviews above outlines that there is inadequate exposure of doctoral students to research forums, it also highlights that research engagements and mentorship with alumni have not been fully explored in the universities under study and their research contribution and expertise has not been fully utilised to mentor other students. This is in agreement with Holmes et al. (2014) who suggest that doctoral students need opportunities that reduce social isolation and allow sharing and learning from each other such as team building. The aspect of research collaboration is also supported by Obeng-Ofori, & Kwarteng (2021) and Tinto (1975) who opines that alumni mentorship is a significant aspect of doctoral education that enhances a state of belonging and increases chances of persistence however, it has not been fully employed in the higher institutions under study. It is evident from the participants responses that although alumni collaborations are dormant in their institutions, they recognise that alumni inculcate motivation and provide research support to students consequently reducing dropout rates among doctoral students. This concurs with the views of Chase, (2019) who outlines that student-alumni interactions inspire self-confidence, self-esteem, enhance student motivation, and inculcate the right mindset towards study completion. Respondents also notes that an active alumni association is a source of financial support in organization of research activities a shared view with Drezner, & Pizmony-Levy, (2020) and Veluvali, & Surisetti, (2023) who states that alumni are vital in fund mobilization and placement opportunities for students.

4.8.2 Theme 2. Inadequate capacity building

Under this theme, two codes: *limited supervisor training* and *networking and collaborations* are presented.

4.8.2.1 Limited supervisor training

Results from the individual interviews revealed that the majority of the administrators from all the universities expressed concern on limited capacity building opportunities for supervisors in their institutions stating that universities did not emphasize on regular training that would improve doctoral supervisory strategies. Most administrators lamented that student challenges are changing with paradigm shift in research, this necessitates effective and collaborative supervision that can only be achieved through continuous trainings. Respondents expressed their views saying;

> *"Research is very dynamic, if supervisors' research knowledge is not challenged and trained on effective and emerging supervision strategies, guiding and mentoring doctoral students might be a challenge. Universities have trainings in their faculty plans however sometimes implementation is partial or may not include all supervisors due to facilitation challenges".* (Post-graduate Dean, University B).
>
> *"Research evolves, knowledge is built and shared. Learning is a continuous process that involve problem solving. New problems arise and new solutions for the problems must be sought however our universities still lag when it comes to prioritizing capacity building for post graduate supervisors".* (Head of Educational Foundation Department, university D).
>
> *Once in a while there can be a lecturers training but… it has been hard especially where there is no sponsor and I think it is impacting negatively on the number and quality of research as well as duration to completion of a PhD degree".* (Head of Educational Curriculum department, university A).

The responses of the education administrators depict a situation of inadequate capacity building for supervisors in most of the universities under study which may negatively affects the quality of doctoral supervision and consequently derails completion of doctoral dissertation.

4.8.2.2 Networking and collaboration

In the context of this study, networking and collaboration involves organization and facilitation of connections and partnerships between supervisors of two or more universities for the purpose of pulling strengths together, sharing resources and skills in order to address common challenges. Majority of the respondents cited limited networks and collaborations among the doctoral supervisors, heads of departments and deans in their universities claiming that these would be an opportunity of motivation, bench-marking, learning and problem solving. This can be seen from the following responses;

> *"Another opportunity to empower the supervisors for effective performance is networking and collaboration with other universities who have been ranked highly. It would be an opportunity to share with fellow supervisors"* (Post-graduate Dean University D).
>
> *"We should even have exchange programs as supervisors in order to develop new skills and share best practices of management and supervision as well"* (CoD Educational Management and Planning department university C).
>
> *"I got an opportunity to visit one university in the Western World and my view of research and supervision was never the same. If all supervisors were to be accorded such a chance the quality of supervision and research would be the best…"* (CoD Educational curriculum, university A)

The participants' responses above suggest that there is limited access to networking and collaborations in almost all the universities under study suggesting that being one way of enhancing postgraduate supervision, this should be encouraged by most universities.

From the responses of participants above, it is evident that there is limited capacity building for supervisors a perception shared with Denis & Lison (2016) who state that some supervisors lack pedagogical training with most supervisors attesting to have learnt supervision through experience on the job because formal sources of learning although desired were unavailable. The respondents' excerpts clearly depict that

universities under study also offered limited opportunities for student and supervisor networking and collaboration, this compromises the expertise of supervisors and limits students' learning forums hence negatively impacting on completion of doctoral dissertation. These inadequacies negate the views of Halse, 2011; Halse & Malfroy, 2010 who opines that universities need to prioritize supervisors appropriate support and offer capacity building and training opportunities through a structured and formal training that positively impacts on supervisors' ability to support PhD students to timely completion. Academic administrators view supervisor training as a way of improving the quality of student guidance proposing its prioritization. This is congruent to the findings of Jowi (2021) who established that besides supervisors acquiring the pre-requisite qualifications to supervise, they are expected to have the knowledge and skill necessary to handle a doctoral candidate to successful completion. Universities therefore should consider training supervisors and providing a code of ethics to guide doctoral students as a way of enhancing quality in research and high rate of PhD study completion (Barasa & Omulando, 2018).

4.8.3 Theme 3. Poor facilitation of supervision practice

The following codes are presented under this theme: *weak supervisor support system, student support* and *inadequate research infrastructure.*

4.8.3.1 Weak supervisor support system

The administrators' interviews across the four universities pointed that majority of the supervisors are demotivated by low remuneration and delayed payments. Almost all administrators from the four universities cited inadequate facilitation of post-graduate supervision by their institutions alluding that to financial constraints caused by poor management and leadership. Majority of the interviewed respondents perceived this to

be negatively affecting the efficiency of the supervisors and motivation to perform engaging supervisory tasks causing delay in dissertation completion.

Most administrators cited limited facilitation of post-graduate supervision by universities pointing that post graduate supervision at dissertation stage is still based on informal structure where mode of consultation, place, time, communication and feedback between a doctoral student and supervisors is informally negotiated. This leaves both parties to negotiate to their convenience causing delay in progress. Some administrators also raised concerns on unclear departmental progress records of postgraduate students that would aid in tracking the candidates' progress.

> *"Supervisors devote their time and finances to give the best input to doctoral studies although they are not well facilitated by the university. In fact, lecturers receive little pay that delay in payment even up to months in many occasions…and yet supervision of post graduate students is ongoing"* (Head of Educational Foundation department, university B).
>
> *"Although it is part of responsibilities of lecturers, it is a big sacrifice to carryout effective supervision especially when it comes to time spent on reading and correcting students' work to even costs involved in communication and all that. All these it is up to the supervisor to struggle…"* (Head of Curriculum studies, university C)
>
> *"It is difficult to track students' progress where departmental records are not found or have gaps. PhD students are left at the mercies of a supervisor who is neither here nor there. Some doctoral students' re-surface long after they have been forgotten by their advisors"* (Head of Department of Educational Psychology)

From the above respondents' quotations, it is evident that supervisors are not adequately remunerated and facilitated in the supervisory process by their institutions. These responses suggests that an overwhelmed supervisor who is not supported will leave the doctoral candidate neglected consequently compromises on completion of dissertation by the doctoral students. This is congruent to the view that effective supervision is compromised by weak administrative support Askew, et al. (2016), poor working

environment for supervisors and post graduate students and inadequate resources (Kessio, 2022; Mwirichia, Jagero, & Barchok, 2017).

The respondents expressed concerns on informal supervision structure and autonomy in engagements between the student and supervisor as Haag, (2017); Halse, (2011) and Halse & Malfroy, (2010) who also points that the practice of doctoral supervision largely remains a privatized practice that lack collective reflections. In line with the participants' views, Shafiq et al., (2020) and Firth & Martens, (2008) also states that university administration should devise support mechanisms informed by postgraduate students' and supervisors' experiences and should also include processes of quality control as well as strategies of fast-tracking student-supervisor engagement and progress.

4.8.3.2 Student support

All the interviewed administrators consented that a doctoral study is academically, financially and emotionally demanding and that many students face challenges that require supervisors' support and guidance throughout the dissertation stage. Most administrators concurred that majority of the students delay or dropout at this stage for lack of support.

> *"If doctoral students are not supported by supervisors at this stage (dissertation stage) majority are frustrated and end up dropping out completely either due to inability to complete the fees, lack of academic assistance by supervisors or failure to get time to pursue the study because of other challenges"* (Head of Educational Psychology department, university D).
>
> *"Some doctoral students delay as a result of failing to get clear guidance from supervisors while many others delay due to personal commitments to other tasks not related to research"* (Education Dean, university D).
>
> *"Delay is mostly experienced in the context where a doctoral student has insufficient access to scientific, human and financial resources*

> *required to aid completion. Aaah… i mean student either has poor research background, lacks guidance and encouragement from an advisor* (supervisor) *or fails to meet study financial responsibilities"* (Head of educational curriculum department, University A)

The respondents' quotations above indicate that supervisor support in the course of dissertation writing is paramount. It also clearly outlines that doctoral candidates' success may be hindered by lack of moral and financial support. This concurs with the view that interference of doctoral study progress and ultimately delay in completion to be attributed to issues of funding and family engagement Soumana & Uddin, (2017) and Weidman et al. (2001) as well as faculty support (Igumbor et al., 2020; Mulinge & Arasa, 2013).

4.8.3.3 Inadequate research infrastructure

Majority of the interviewed administrators expressed concern on the shortage of learning facilities for post graduate students and supervisors. Most of them cited inadequate infrastructure, and stationery that would make doctoral supervision effective. Most of the administrators lamented that some supervisors have no specific offices in the institution designated for making consultative meetings with their doctoral students.

> *"I carry most of my working tools in the car, I only sit in the department when we have meetings because the office shared by all of us* (department lecturers) *is small"* (CoD educational foundations university B).

> *"I think supervision is regarded as a private responsibility by the university, many a times even to print a copy of a document is a problem. Resources are scarce and work is much…"* (CoD, Educational Psychology university C).

> *"In my department, we have an office that can hardly accommodate half of the supervisors, most of the work is done at home including marking of dissertations. Supervision work is done online or outside the university…"* (CoD Educational Management and Planing Department University A).

The participants' responses above clearly bring out a challenge of inadequacy of infrastructure in the universities an issue that compromises on the working conditions of supervisors and consequently impacting doctoral supervision negatively. The view of inadequate infrastructure raised by respondents is shared with Mwirichia, et al. (2017) and Maloshonok & Terentev (2019) who states that different modes of study introduced in most Kenyan higher institutions have brought significant influx of students into university doctoral programs leading to constrain in both physical infrastructure as well as human resource available to support university education, with adverse impact on the African quality of higher education Kenya included.

This is also brought out by Mukhwana et al., (2016) who reiterates that academic staff grapple with huge class sizes, increased workload, inadequate infrastructure and instructional facilities while dealing with less motivated doctoral students. The issue of inadequate infrastructure highlighted by the respondents is also pointed by the studies of Matheka et al. (2020) and Momanyi (2022) who reiterates that success in doctoral studies is as a result of diverse factors that include efficacy of lecturers and availability of training facilities.

4.8.4 Theme 4. Supervision inhibiting factors

Three codes are presented under this theme: *shortage of doctoral supervisors, high supervisor workload* and *students' engagement in other obligations.*

4.8.4.1 Shortage of doctoral supervisors

From the interviews, majority of the heads of departments and deans perceived that the effectiveness of the supervisors as advisors of doctoral students is a factor of dissertation completion. Most of the administrators from across the four universities claimed that their institutions are facing shortage of qualified and experienced academic

staff to supervise doctoral studies in some courses. Explaining the shortage of qualified supervisors, most administrator respondents stated that the deficit in academic staff is partly attributed to limited promotions and some supervisors exiting teaching to venture into other lucrative political positions, teaching in highly paying private universities and seeking higher government appointments. Some administrators alludes that this turn-over may negatively affect doctoral students who are at the stage of dissertation writing.

> *"Some doctoral courses do not have even one professor who is full time in the department. Like in my department, we have a few and mostly we rely on eeh…collaboration with the other universities for doctoral supervisors in comparative education" (CoD Educational Foundations University B).*
>
> *"There is shortage of supervisors in my department to an extent that we have contracted some from other universities to avoid collapse of some programmes due to shortage of specialists in those fields. These contracted supervisors are overburdened by the number of students and at times demotivated because the university do not pay them on time".* (CoD; Educational Foundations, university C)
>
> *"Most of the experienced supervisors are leaving the educator positions for 'greener pastures'* (Higher paying opportunities*) e.g. politics and teaching in private universities. Some departments remain with very few supervisors such that students-supervisor ratio is very high thus overburdening supervisors"* (CoD; Educational Curriculum Department D).
>
> *"Every year we have students who come back to the department for re-allocation of supervisors because their supervisors have left service. Some go abroad others seek government appointments…".* (CoD; Educational Pschology University A).

Based on participants' responses, all the four universities experienced shortage of qualified supervisors in most of the departments under study. Respondents explicitly articulated that there is a shortage of experienced academic staff for doctoral supervision, high student/supervisor ratio and inadequate facilitation of supervision compromising on time to dissertation completion and study quality. This is congruent to the views of Lyman et al., (2013) who points that increased enrolment in doctoral

studies globally coupled with low number of academic staff who are holders of PhDs in any university compromises the quality of research, limits establishment of international linkages and has a negative implication on doctoral study supervision and time to completion

This is affirmed by Asiimwe, (2019) and Barasa & Omulando, (2017) who established that although there is an increase in the number of academic staff with PhD qualification in African universities, it does not meet the institutions' rising needs due to increased enrolment in post-graduate students. The findings of Jowi (2021) also affirms the argument pointing that African universities have relatively a small number of academic staff with doctoral qualifications. The respondents' perception that the shortage in qualified academic staff leads to a decline in doctoral supervision quality and degree out-put is aligned with the views of Bacwayo, Nampala & Oteyo, (2017) who notes that the shortage leads to the rise in students to supervisor ratio which is the basis of poor mentorship and supervision of doctoral students.

4.8.4.2 High supervisor workload

All the interviewed participants perceived that supervisors have many competing responsibilities that hinder their effectiveness in doctoral supervision. Respondents cited teaching units, office tasks and meeting, administration and marking of examinations including thesis and supervision of a number of postgraduate students as among the tasks of a supervisor. Respondents highlighted that these demanding tasks at times divert the attention and concentration of the supervisor away from the students' project. Respondence expressed their views saying;

> *Majority of the supervisors are overwhelmed by many responsibilities such as; high teaching workload, administrative work and supervision. Some lecturers are too busy with side hustle* (i.e

> contracted personnel in other institutions), *at times they are contracted as supervisors and external examiners by other universities".* (H.O.D Curriculum Instruction and Educational Media university C)
>
> *"Supervisors have a lot to do. They teach units both in undergraduate and post graduate, perform administrative responsibilities, attend proposal and thesis defences, evaluate thesis and still are to be engaged in supervision. This is the cause of low output as far as low completion of doctoral studies is concerned"* (CoD; Educational Psychology university D).
>
> *"If the students you supervise are over dependent on you, their progress will be slow because as a supervisor you get pressure from all directions and the students must be active at all times"* (CoD; Curriculum Instruction and Educational Media universityA).
>
> *"The responsibilities of supervisors comprise supervision of post graduate students and administering teaching in both postgraduate and undergraduate levels. Most of us have high teaching workload and many students to supervise, besides other key engagements such as serving in institutions' committees, community activities, partnerships etc. In all cases supervisors are expected to strike a balance to ensure all roles are played well which is not usually the case"* (Post-Graduate Dean University A).

The respondents' views above alludes that supervisors have overwhelming tasks that inhibit their productivity in effective supervision. The respondents' views concur with Askew, et al. (2016) who points that a supervisor carryout heavy tasks including teaching, research and administrative duties limiting time for consultation between a student and a supervisor on the project Ismail, et al. (2011). Studies conducted by Sarwar et al., (2018); Rensburg & Mayers, (2016) also affirms that factors that hinder supervision process include: lack of experience by supervisors, high workload, insufficient expertise in the research field, allocation of high number of students to supervise, compromising quality in research work, limited utilization of modern communication tools and supervisors' additional responsibilities.

The respondents concern on high supervisor work-load is in line with the findings of Asiimwe, (2019) who laments that high turn-over in the academic staff results in the

remaining qualified supervisors being overworked; assigned a large number of students to supervise in addition to already high teaching workload and other administrative responsibilities impacting negatively on their supervisory efficiency. Respondents advocate for balanced supervisor responsibilities in order achieve effective supervision.

4.8.4.3 Students' Engagement in other obligations

Most of the administrators interviewed agreed that the major cause of delay in doctoral study completion is the students' non commitment to study completion. Respondents attributed delay in completion to students not prioritizing the study among other responsibilities competing for their limited time and resources. All administrators concurred that majority of doctoral students are self-sponsored teachers who are under full time employment, most of the time they are too engaged with work and social responsibilities leaving little or no time for their research. Most administrators also claimed that most students are not open to their supervisors concerning study challenges they face. Some administrators also pointed that most doctoral students experience financial constraints during research phase of the study because they are unable to pay fees at the same time meet the expense of data collection, analysis and publishing articles which is a requirement before completion. Participants in their responses said;

> *"Majority of students procrastinate the study tasks instead of consulting their supervisors on the challenging areas to an extent that they find it a challenge to pick up again and continue"* (H.O.D Educational Foundations, university A).
>
> *"Some of our students are employed in the university on contract basis but majority are full time teachers in schools who have work pressure and hardly find time to concentrate on dissertation writing and all that it takes, some are unable to pay doctoral study fees on time and meet research expenses due to other personal competing needs"* (H.O.D Educational Psychology, university B)
>
> *"Well… a number of students at times are faced with genuine challenges that distracts their continuity although most of them don't share with their supervisors. They* (Doctoral students) *just disappear*

> *or they just lose hope and commitment on the way…"* (H.O.D Educational curriculum university D).

The respondents verbatims illustrates that majority of doctoral students have work and personal responsibilities that engage them to an extend that they do not get time to focus on writing their dissertation to completion. This is in harmony with the findings of Barasa & Omulando, (2018) who cite students' personal life, work circumstances and funding constraints as main reasons for doctoral students delay in completion of a PhD dissertation. The respondents' view that doctoral students commit little time to research due to other roles is supported by Pifer & Baker (2016) who identified challenges facing doctoral students as: personal and familial roles as well as other responsibilities. Congruent to the respondents' views, Barasa and Omulando asserts that most doctoral students are engaged in other life activities such as part-time teaching, other employment and family commitments such that they do not keep in touch with their supervisors after completing coursework or proposals. Administrators perceived that completing the dissertation stage is a hurdle that demands students' commitment and independence (Robinson & Tagher, 2017). Respondents lamented that most doctoral students fail to develop independence after completing coursework or proposal; they experience isolation especially when they lose peer and instructors' support Spaulding, Rockinson-Szapkiw (2012) leading to delay in study completion. The respondents highlighted competing obligations as one of the causes of delay in study completion, this is in agreement to Soumana, & Uddin, (2017) who attribute interference of doctoral study progress and delay in completion to issues of funding, family engagement, the role of the supervisor and the nature of supervisor-supervisee relationship, preparation for research, psychological challenges and health problems.

4.9 To explore supervision experiences of doctoral education students and supervisors in the completion of doctoral dissertations

In order to answer this research objective, qualitative data gathered from part three of the students' and supervisors' semi-structured questionnaires and supervisors' focus group discussions were thematically analysed and the following themes generated; *student-supervisor collaboration, inadequate academic writing skills, academic malpractices and support mechanisms.*

Table 4.23: Summary of the findings addressing research question four

Themes	Codes
Student-supervisor collaboration	Effective communication Power dynamics Supervisor proficiency
Inadequate academic writing skills	Limited research skills Weak research background
Academic malpractices	Plagiarism Subjective evaluation
Support mechanisms	Faculty and peer support Research opportunities Family support and social issues

4.9.1 Theme 1: Student-Supervisor Collaboration

In the context of this study, student supervisor relationship where a student is supervised by more than one supervisor is a connection between a doctoral student and the supervisors during supervisory process. From the focus group discussion and student and supervisor questionnaires, both students and supervisor participants

highlighted different views upon which a student-supervisor relationship is built on. These includes: (i) *Effective communication* (ii) *Power dynamics* and (iii) *Supervisor proficiency*.

4.9.1.1 Effective communication

All doctoral students across all the four universities pointed that the 'good will' of the supervisor is a major factor of completing doctoral studies. All the students attested that communication and feedback between the student and supervisor at every stage of dissertation writing builds a relationship that is critical to timely completion of a doctorate degree. Majority of the doctoral students across the four universities stated that their universities do not have a structured mode of communication between students and supervisors however, it is based on the common understanding between them. Most students claimed that communication between majority of doctoral students and supervisors is not effective claiming that most supervisors and students are not responsive. Majority of the student participants concurred that both students and supervisors delay giving feedback with most responses given after a long time with several prompts.

The view of most supervisors in the study was congruent to the students' view stating that student-supervisor communication is not yet effective. The majority of the supervisors on the other hand confirmed delay in feedback from supervisors mostly caused by overwhelming number of students under one supervisor and other supervisory responsibilities proposing that doctoral students should be proactive as well in order to maintain communication with their supervisors. Both student and supervisor participants perceived that effective communication and feedback amongst doctoral students and supervisors have not been achieved. Majority of both the students and

supervisors pointed that there is need for both parties to develop openness in communication if timely study completion is to be realized. This is evident from the following participant verbatims:

> *"Communication between students and supervisors has always been unstructured, I mean…one that is not monitored by the university but based on parties'* (Students and supervisors) *agreement. Although it is expected to be a cordial one, sometimes it is not"* (ALA1)
>
> *"Sometimes physical distance between the supervisor and the doctoral student is much and expensive such that meeting physically is not convenient, in this case if the supervisor fails to respond to mails, fails to read students' work, there will be a missing link and progress slowed down…"* (CSP2)
>
> *"Students also delay in giving feedback when challenged by the tasks assigned, or held up in other responsibilities…supervisors on the other hand delay to respond to students' work because they are either too busy with other students' research work, teaching courses, office work or meetings etc."* (DLF2)
>
> *"Effective communication is the responsibility of both the student and the supervisor, some students go silent for months without informing the supervisor on their writing progress. Student and supervisor openness in communication will stir progress in research work."* (BSC3)
>
> *When a doctoral student communicates with a supervisor more often and exchange feedback, it encourages the student to walk the study journey by themselves and enhances honesty in fieldwork in addition, it keeps the supervisor abreast with the students' work and enables the supervisor to give the best advice"* (DSA2)
>
> *"Mutual trust and clear communication between students and supervisors are essential values for study completion, the supervisor should encourage independence at the same time offer opportunities for development and progress, the helpfulness and timelines of supervisor's comments and feedback should be acted upon promptly for a student to realize early completion of the degree"* (CLP2)

It is evident from respondents' views in the above quotations that both the doctoral students and supervisors perceive that effective communication between them is crucial and closely related to doctoral students' thesis completion and satisfaction (Hadi & Muhammad, 2019; Shin et al., 2018; Shariff et al., 2014; Tahir et al., 2012).

Respondents highlighted that when there is a gap in communication between students and supervisors, it disrupts progress in the study research work. This is in line with the views of Soumana & Uddin, (2017) who emphasize on constant interaction between supervisor and supervisee. Supervisor and student participants also underscore the need for open communication in order to offer guidance when students are facing research challenges. This is also supported by the opinion of Joseph & Kalabamub (2018) who points that timely feedback to students, effective communication between advisor and student and a good relationship are key pointers of a possible timely completion of dissertation. Key to efficient completion of PhD study according to Rugut (2017) is a healthy relationship between the student and the supervisor which is based on continuous, honesty, flexible and diplomatic negotiations, student and supervisor commitment, sustained collaborations and supervisor support. He reiterates that giving timely feedback, quality guidance and efficient communicating is also crucial to timely completion of doctoral studies. It is evident that a good student/supervisor relationship and a close link is associated with study satisfaction and less intentions of quitting (Van Rooij, Fokkens-Bruinsma, & Jansen, (2021).

4.9.1.2 Power difference

In their responses most student participants raised concern over power dynamics between doctoral students and their supervisors as an issue that negatively affects student-supervisor relationship and academic interaction in the supervision process. Majority of the students pointed that some supervisors demonstrate superiority in supervision hence limiting the students' comfort and freedom in sharing study ideas and research challenges freely with advisors. Most students pointed that power difference between two supervisors in a research project sometimes results to conflicts that may end up disrupting the supervision process. Majority of the student respondents

also highlighted the issue of conflicting advices from co-supervisors affirming that at times the feedback from one supervisor contradicts the advice of the other leaving the student in dilemma who has to pause for a while causing delays in completion. A few students reported biased critiques of the dissertation by other supervisors during defences arising from supervisors' personal differences. Most of the students stated that a good relationship is that which creates proper academic engagement based on mutual respect and a culture of collaboration between students and supervisors.

Majority of the supervisors on the other hand felt that power difference exists between students and supervisors as well as between supervisors however, open communication and continuous consultation should close the gap. Both students and supervisors concurred that developing a good working relationship and collaborative supervision; a warm relationship that does not instil fear and anxiety to both parties but act as a medium of continuous consultation, exchange of ideas and objectively critiquing the study is key to dissertation completion.

> *"In some instances, one supervisor may rubbish what the other supervisor have done with you or withdraw from guiding you. So, you are left with only one active supervisor..."* (DSC1)
>
> *"Some supervisors are subjective in critiquing students' work during defences as a way of undermining and belittling a fellow supervisor whom he or she has personal differences with".* (CSA2)
>
> *"Some co-supervisors fail to merge corrections given to student such that the student finds that the feedback from both ends is conflicting and left at a cross road. Others feel that their advice is superior than the advice of the other supervisor".* (ASP3)
>
> *"There is always power difference between student and supervisors and even between supervisors themselves but the parties should express their expectations in the supervision process in order to accommodate one another and bridge the gap".* (CLC2)

From the quotations above, respondents expressed a concern on power difference between a doctoral student and supervisors and between supervisors themselves

claiming that if the gap is too wide, it may cause friction to supervisory process which in turn cause delay in study completion. Doctoral students expressed concern where supervisors' advice is not in harmony stating that it causes a dilemma to the candidate and may cause the student to give up. This agrees with Rooij et al. (2019) who states that a good student-supervisor relationship and a close link is associated with study satisfaction and less quitting intentions, it is therefore important to have a good match between the student and supervisors, both academically and personally (Van Rooij et al., 2021; Woolderink et al., 2015). Respondents advocated for doctoral students' autonomy in research claiming that they should be given freedom to share their research ideas. This concern is shared by Devos et al. (2017) whose findings revealed that approximately one-third of the non-completers of doctoral dissertation were being forced to work in a direction that they did not wish to follow. In addition, Shin et al. (2018) points that doctoral students' freedom in making their own planning and in expressing their opinions is positively associated to study satisfaction Shin et al. (2018) and relate to timely completion as well.

4.9.1.3 Supervisor proficiency

Most of the student respondents pointed that some of the supervisors discourage students from exploring emerging methodologies restricting doctoral candidates they supervise to use conventional methodologies or the approaches in which supervisors themselves used in their studies. This limits doctoral students' interest and ease in conceptualizing the study from their own perspective causing delays in completion. The majority of the student respondents raised concern about the need for supervisors to decolonize research methodologies in order to contextualize research, stating that this will lead to quality research output and pave the way for early completion of doctoral studies. Most student respondents raised concern about situations where both

supervisors assigned to a candidate are aligned to one research approach contrary to the students' approach claiming that sometimes the student has to seek help from a different specialist related to that approach slowing down the progress. The majority of the doctoral students also noted that most PhD candidates are slow in reading and making wide consultations, and consequently hesitant to appreciate different emergent research approaches.

All supervisor respondents on the other hand pointed out that candidates supervised by committed and highly research-skilled supervisors are likely to complete the dissertation on time. They claimed that there is a need to have continuous supervisors' training that will enable them to gain expertise in all areas of research in order to advise doctoral candidates appropriately. Most supervisor respondents opined that on-the-job training and capacity building should be encouraged in order to enlighten supervisors on the current trends in research. Respondents' perceptions were expressed in the following quotations: `

> *"Some lecturers direct their students to use the approach they used in their studies and maybe this is not what you want. You know you don't think the same and the nature of problem at hand may be different so it may disorient your research plan…."*. (CSA1)
>
> *"When I began writing my proposal, my draft was a qualitative one but my supervisors insisted that I make it a quantitative study, this disorganised my line of thought for some time because these are to different research orientations"*. (DSA3)
>
> *"Most of the students do not have time to read and make extensive consultations and make decisions in our study early and so you get confused for a long time fumbling with everything here and there"*. (CSP2)
>
> *"You can never have enough knowledge and skills in research because it keeps evolving and research methods emerge. Majority of supervisors do not have cutting-edge skills in research and supervision as a result of limited training and career development opportunities such as refresher courses… very few supervisors deliver candidates to graduation"*. (BLF1)

From the respondents' quotations above, there is a close link between doctoral students' progress and supervisors' research proficiency. This corroborates with Rensburg & Mayers (2016); Hyatt & Williams (2011); and Noonan et al. (2007), who affirm that supervisors' pedagogical and research skills to provide precise and effective guidance through the dissertation process is connected to timely dissertation completion. Supervisors' responses reveal a perception that highly skilled supervisors give a high-quality supervision that results to early study completion and satisfaction as established by (Skakni, 2018b).

Doctoral students' perception that candidates supervised by committed and highly research-skilled supervisors are likely to complete the dissertation on time is in accordance to the views of Sarwar et al., (2018), Rensburg & Mayers (2016) who opined that factors that hinder supervision process include: lack of experience by supervisors, high workload, insufficient expertise in the research field, allocation of high number of students to supervise, compromising quality in research work, limited utilization of modern communication tools and supervisors' additional responsibilities. Respondents advocate for supervisor training, a view supported by Rugut & Chang'ach (2023) stating that supervisor expertise is an enriching opportunity that can be developed through capacity building however, these trainings are not prioritized for implementation even though they form part of the departmental plans in the universities under study.

4.9.2 Theme 2. Inadequate academic writing skills

The results of this theme are presented under the codes: *weak research background* and *limited research skills.*

4.9.2.1 Limited research skills

Most of the student respondents reported to have challenges in writing scholarly work an experience they claim to be causing slow internalization of research concepts. Doctoral student respondents claimed that doctoral dissertation unlike master's studies requires that a student makes new contribution to the already existing body of knowledge through his or her research a requirement that demands more scientific input to the study. Students attributed limited research skills to poor reading culture, weak support system from faculty and supervisors including limited access to research resources and limited time to focus on the study. Most supervisor respondents perceived that most doctoral students have not grown academically to independent and autonomous researchers. Most of the supervisors pointed that majority of the doctoral students do not read on their own to expand their research knowledge and skills. Participants responded saying;

> *"There is a gap between knowledge acquired in the course units and putting it into practice. Making choices of research methodologies in a study needs one to have really read deeply but where is that time? even reading culture is wanting..."* (BSA1)
>
> *"Many students take a long period of time after coursework to develop a proposal. By the time they begin the real research they will have forgotten all that was learned that needs to be applied to solve a research problem"* (CSP2).
>
> *"...limited access to research resources and guidance from faculty members sometimes make students handicapped in research knowledge and skills".* (DSF3)
>
> *"Majority of the doctoral students do not show commitment to the research process by working confidently and independently with minimum guidance. They are swayed away by other walks of life ".* (ALC3)

It is evident from the participants' responses above that doctoral students experience a limitation in research skills due to limited access to research resources, over-

dependence on supervisors, poor reading culture and weak support system. This in turn poses a challenge to doctoral dissertation writing extending to longer duration than required. This agrees with the findings of Ali et.al. (2016) and Levecqueet. al. (2017) whose research findings showed that the extent to which PhD students are autonomous in designing and execution of their research is closely linked to their success and satisfaction. This implies that a student who is not autonomous is dependent and chances of success is low.

Literature has demonstrated that a successful process of supervision depends on doctoral students' ability to demonstrate maturity in their thinking, outstanding communication skills both written and verbal, well developed emotional intelligence and high-level resilience (Casey et al., 2022; Lee, 2010; Lee, 2008). This implies that doctoral students' research prowess determines the rate at which the study progresses and time to completion.

4.9.2.2 Weak research background

Doctoral student respondents described experiences of inadequate research background amongst doctoral candidates. Most respondents perceived that their master's studies did not give a prerequisite knowledge and skill required for their PhD because either it took so long after completion of the master's degree before enrolling for the doctorate degree or the master's degree did not have the rigour that a doctorate degree requires. The majority of the participants attested that they had not published any scholarly work before describing that there is a relationship between the success of a doctoral student in thesis writing and their research background. Supervisor respondents also raised concern about doctoral students' weak research background attributing it to students using other individuals to do most of the research activities such as the collection and analysis of data on their behalf. Participants responded by saying;

> *"I think my research background is not strong because I took more than six years to enrol to my doctorate studies since I finished my masters and so I had to read a fresh…"* (DSF1)
>
> *"My PhD degree is one without course work I have to read widely and with focus to build my research foundation, an exercise that requires a lot of commitment"* (BSC4)
>
> *"Master's degree did not have a requirement of publication and so I was not exposed to writing scholarly work, if I did it would be an advantage. yes, actually I think someone with a strong research background stands higher chances of success in doctoral degree".* (DSA1)
>
> *"…many students use other individuals or other researchers to carry out their research especially gathering data and analysing it. You find a student does not understand basic principles of research. Others do not understand their study and during defence some are forced to redo it".* (ALA2)

The participants' responses above clearly reveals that most of the doctoral students have a weak research background which arises from students failing to read extensively and apply the knowledge and skills acquired in research earlier. Respondents' concerns are pointed by the Australian Qualifications Framework (2013) which states that research writing process and expectations at doctoral level are complex and challenging and that it demands that doctoral students develop specific academic skill sets that are transformed from their earlier studies. Respondents pointed that most students delegate their student responsibilities such as data collection and analysis to research assistance. It is clear that when one has weak research background, they may end up failing in thesis defence and delay to complete the study. This corroborates with the findings of Grover (2007) who pointed that writing of doctoral dissertation requires competencies such as efficient absorption of knowledge, integration, well-organized tool deployment and ultimately, creation of quality knowledge output. This therefore implies that doctoral students need to express a minimum threshold of motivation and research competence for success. Herman (2011) and Kyvik & Olsen (2014) also note that candidates' ability or skills are critical, Ampaw & Jaeger (2012) asserts that prior

academic preparation is a major factor in doctoral persistence although in some cases programs often enrol students who do not demonstrate capabilities of success in a doctoral program but are pressured to meet the university objectives of increasing enrolment.

4.9.3 Theme 3. Academic malpractices

The third theme is presented under the codes: *plagiarism and subjective evaluation*

4.9.3.1 Plagiarism

Majority of the student respondents revealed that their institutions focus more on detecting academic malpractices such as plagiarism index on final product that is dissertation however, less focus is given to guiding the candidates on general integrity and rigour of the whole research process. Many student participants highlighted that majority of doctoral students are coupled with a challenge of scholarly language. They expressed that the students learn the art of scientific writing through practice an experience that takes a lot of time.

Majority of the supervisor respondents raised concern on the quality of doctoral dissertation of some doctoral candidates claiming that some students hire other individuals to carry out and write the whole manuscript for them. Most supervisors articulated the need to cultivate the virtue of academic integrity among doctoral students. Participants responded saying;

> *"Most Universities are interested in plagiarism index of the final thesis assuming that all the ethical considerations have been dully followed an assumption that may not always be the case…"* (ASA1)
>
> *"While strict measures are put to punish doctoral candidates who are found having committed academic malpractice such as plagiarism, the students are barely guided and informed on how to go about so as to avoid it."* (BSP2).

> *"The fear to plagiarize causes anxiety and slows down the student progress or makes some students to engage other assistance apart from the supervisor in the research project compromising originality"* (DSF3).
>
> *"The good thing is that universities have acceptable plagiarism index currently. Candidates would plagiarize because they don't pay attention to the concept of referencing"* (CLC1).

The respondents' quotations above, implies that majority of the doctoral students experience challenges in adhering to the requirements of scholarly language and research integrity. Supervisors and students supported the need to inculcate the virtue of academic integrity in the academia rather than focusing on surveillance and enforcement through detection of similarity index (Dawson, 2021). This agrees with the views of Cutri, Freya, Karlina, et al. (2021) who highlights that developing doctorate students' academic integrity entails integrating explicit instructions on academic integrity in teaching and learning as well as in practice, supporting student academic literacy development, and transforming supervisory practices. In addition, Clarence (2020) points that it is the responsibility of the educators to have a comprehensive doctoral education program which explicitly teaches integrity skills and enable students to be confident and value integrity, authenticity, and ethics in research and foster timely study completion.

4.9.3.2 Subjective evaluation

Many doctoral student respondents expressed experiences of unfair evaluation of doctoral dissertation amongst some lecturers claiming that some supervisors are subjective in their judgment. Most student respondents raised concern over the range of marks awarded by external and internal examiners of dissertations arguing that sometimes there is a huge deviation which suggests that either examiners do not strictly follow the stipulated guidelines and policies of evaluation or there is biasness in the whole process as a result of some examiners being assigned to examine dissertations

which do not fall in research areas of their specialization. Respondents also raised concern that some examiners fail doctoral students during oral dissertation defences because of personal differences between the examiner and the supervisors. Majority of doctoral students also argued that PhD students are not made to understand the criterion of examining a dissertation, they claimed that most students do not know what examiners expect and look for in a dissertation. Most of the students from across the four universities cited delay of feedback from internal and external examiners examining thesis after submission with some doctoral students claiming that sometimes a dissertation may take up-to eight months and which cause demoralization to the doctoral candidate.

A few supervisor respondents expressed biasness in dissertation evaluation attributing it to examiners working under pressure as a result of a demand to examine within a short duration. Respondents responded saying;

> *"In some cases, you find that two examiners award marks that differ by up to twenty marks. This shows that one of the examiners is not an expert in that research area or the examination policies and guidelines are not adhered to…".* (CSA1)
>
> *"During defence some panel members aim at failing the student or awarding very low marks as a way of demeaning the students' supervisor while others highly pass simply because they are supervised by senior professors a thing that really compromises on quality and satisfaction…".* (CSP3)
>
> *"Some examiners are aligned to one research approach and when they are examining a dissertation that is aligned to the contrary approach, they tend to be biased in awarding marks. It is not clear to the students what the examiners expect in the thesis".* (DSF3)
>
> *"Sometimes you are given a dissertation to examine and results are required within a very short time and you have to rush through it…".* (DLA2)

From the respondents' quotations above, it is clear that in some cases, examination of dissertation is flawed. It is evident that some doctoral candidates experience unjust

evaluation from examiners and defence panel members leading to award of marks which is not a true reflection of the student's performance. The respondents' arguments on subjective evaluation are contrary to the views of Choi (2019), Anderson & Anderson (2012) and Halse & Malfroy (2010) who argue that it is a vital role of an advisor who is also a mentor equipped with 'contextual expertise' to socialize doctoral students into the scholarly community by giving training on how to write a genre of academic writing and how to observe the university's requirements of candidacy.

4.9.4 Theme 4. Support Mechanisms

The results of the fourth theme are presented under three codes: *faculty and Peer Support, research opportunities* and *family and social support*.

4.9.4.1 Faculty and peer support

Most student respondents asserted that support offered by supervisors and peers to doctoral students is key in the PhD study journey. Most students emphasised that supervisors and faculty leadership need to keep in touch with doctoral students monitoring progress and giving clear guidance at each stage of the dissertation writing in order to avoid confusion and stagnation. They also expressed concerns on the post graduate guidelines and policies saying that the faculty leadership should ensure that they are explicit and implemented to the latter. Majority of the students expressed loneliness in the dissertation phase of the study claiming that without motivation, encouragement and guidance from the faculty and fellow students, progressing is tedious. Most student participants raised concern on student isolation during dissertation writing as the cause of delay in completion and proposed regular research activities that can put students and supervisors together for research interactions and support.

Almost all student respondents suggested that their universities should consider involving the students in assigning the supervisors claiming that the move will consider their preferences and stimulate research interest and foster cooperation. Majority of the supervisors also asserted that a missing link between doctoral candidates, their supervisors and peers weaken the study focus eventually causing delays in completion. This is evident from the following participant responses:

> *"When course work is over, every student develops a proposal and finally a thesis in isolation. At times you feel confused and off track and at this stage if you do not find clear guidance you lose hope or you pause the study for some time".* (BSA3)
>
> *"During thesis writing students are lonely because they are far a wide and rarely meet to discuss their challenges. University should organize common workshops or conferences to bring researchers together for support".* (BSF2)
>
> *"Sometimes the more you read the more you get confused and you reach a point of hopelessness because you have to decide and you are alone. Supervisor should come in handy to assist at this point".* (DSP3)
>
> *"When connection between doctoral candidates and supervisors is weak and also between a candidate and his peers, the chances of a doctoral student maintaining focus for progress is slim. Faculty should also put in place and strictly implement clear policies and guidelines on postgraduate studies".* (BLP1)

The participants' excerpts suggest that weak support system from the faculty and peers is detrimental to doctoral students' progress in dissertation writing. Although a majority of respondents described a situation of weak support system in their faculties, they outlined that collaborations between doctoral candidates and their faculty members through workshops and conferences build a solid network that enhances advancement in thesis writing. This concurs with Choi (2019) who notes that PhD students may often feel anxious, frustrated and overwhelmed in the journey of dissertation writing as a result of inability to progress towards achieving a doctoral degree, emotional support of the supervisors is therefore paramount throughout the doctoral journey.

The respondents' concern on weak faculty support is affirmed by Shafiq et al., (2020), whose research revealed that majority of East African universities do not have clearly documented guidelines which outlines support mechanisms that foster effective supervision. The respondents wish for collaboration between students and supervisors in their institutions corresponded with the opinion of Berger & Braxton (1998) who points that doctoral students' relationship with lecturers and peers is imperative in attaining their professional careers and directly facilitates the academic and social integration of doctoral students. Universities should therefore shift the focus from student retention to motivating students to stay and persist to degree completion (Tinto, 2017).

According to Shafiq et al., (2020), in order to capture the specific needs of supervisors and students in the support process, the support mechanisms should be informed by postgraduate students and supervisors' experiences. Administrative support should also include quality control processes as well as ways of fast-tracking student-supervisor engagement and progress (Firth and Martens, 2008). Majority of the student respondents wished to get an opportunity to give their preferences when it comes to selection of supervisors a view that is shared with Gube et al. (2017) who advocates for a good match between the student and supervisor, both academically and personally.

4.9.4.2 Research opportunities

Majority of student respondents expressed that doctoral students have limited research opportunities such as exchange programmes, capacity building in research and research grants which would aid students and supervisors in carrying out research activities. Most student respondents also stated that their departments do not organize regular research seminars and workshops, this situation limits interaction between scholars. The supervisors' experiences on research opportunities matched the students. Majority

of the supervisors expressed their experiences of limited capacity building on research in their departments claiming that this negatively affects adequate preparation of doctoral students for the dissertation tasks. The majority stated that the capacity building opportunities would help supervisors and students improve their technological skills and understand emerging research issues. This can be depicted from the following participants responses:

> *"…If universities could lookout for local or international collaborations, exchange programmes and benchmark with other universities where success rates are high, that would make doctorate students and supervisors to improve".* (DSF3)
>
> *"Opportunities are there only that we are unaware or not keen. Other universities apply for research grants for students and supervisors that can aid in facilitating research in* universities". (BSC4)
>
> *"We say doctoral study is full time but many students are working as they study this distracts research processes such as data collection denying candidates research opportunities and cause delay".* (ASA1)
>
> *"One way to reduce doctoral students' isolation is to organize regular seminars and workshops at the departmental level. This will prepare doctoral candidates to be autonomous researchers…"* (CLP2)

The participants' responses describe a situation of limited research opportunities in their institutions which could imply that doctoral students are not continuously prepared for the dissertation writing. The interaction between scholars in research enhances creation and sharing of knowledge and ideas and development of applied skills in research which guide doctoral students in dissertation writing. This is in line with what Veluvali, & Surisetti (2023) and Holmes et al. (2014) highlighted that doctoral students need opportunities that reduce social isolation, allow collaborations and partnerships for mutual benefits. Gardner (2008), Jairam & Kahl (2012) and Stubb, Pyhalto, &Lonka (2011) also adds that lack of socialization in doctoral programs increases attrition risk among doctoral students. Adequacy of research opportunities such as accessibility of scholarship and research grants is critical to completion as pointed by Hadi &

Muhammad (2019) who argue that it is a basis on which doctoral students are persuaded to register in certain higher institutions and achieve timely completion.

4.9.4.3 Family support and social issues

Family support is contextualised in this study as a situation where a doctoral student is accorded moral, emotional psychological and financial support by the immediate family members and dependants during the demanding PhD study. Majority of the respondents cited the importance of this support claiming that without it, doctoral candidate can be demoralised and cannot concentrate in the study causing delay. Most student respondents blamed family issues and social issues such as politics as distractors of focus in doctoral study. In the respondents' point of view, overwhelming family responsibilities slow down the dissertation progress of a candidate causing him or her to miss deadlines and fail to complete assignments on time. The respondents proposed a balance between family responsibilities and study by doctoral students if timely completion is to be achieved. Participants stated as follows:

"As a doctoral student there is usually so much is expected from you. You could be a parent, a spouse, have many dependants and the community too require your services, usually the study is the one compromised. Learning to balance all is actually a success by itself…". (ASF2)

> *"If one does not get the good will of family even finances and stress will make one not to attain the doctorate. Support from family is part of a conducive environment required by PhD candidates all the way".* (DSP1)
>
> *"Family and personal issues may weigh you down for some time extending your study period. For my case, sickness cropped in such that I had to consider health fast but commitment is all it takes for one to complete".* (BSA3)
>
> *"Some students are engaged in other responsibilities such that they don't work as advised by the supervisor. Some read supervisors' mails*

> *after months and this discourages supervisors. Others pause the study to 'chase'* (pursue) *other career opportunities such as politics and social issues. They become too much occupied with it and cannot find enough time to research and write".* (BLC3)

The Majority of the respondents' quotations revealed that doctoral students' delay in dissertation completion is as a result of failure of doctoral students to balance engagement in social issues and study tasks, needs pressure from dependants as well as limited support from family. This is supported by Evans et al. (2018) and Levecque et al. (2017) who argues that unresolved family and social issues may cause mental health problems such as anxiety and depression among PhD students which is related to being behind study schedule. Weidman et al. (2001) also asserts that relationships with individuals who support doctoral studies such as advisors, family, personal communities, friends, employers etc is paramount in completion of a doctoral study.

4.10 Chapter summary

This chapter presented the study findings and the discussion of the findings logically in the order of the research questions. In the first and the second research questions, quantitative and qualitative findings for each research question were first presented respectively and the findings discussed. In the third and the fourth research questions, qualitative findings are presented thematically followed by discussion of the findings in each research question. The chapter illustrated the extend of doctoral students' preparedness, access to and use of research resources for the completion of doctoral dissertation, education administrators' perception on dissertation completion and the experiences of doctoral students and supervisors on the completion of dissertation. The researcher recontextualised the study findings in the discussion, compared the findings with the existing literature and identified areas of convergence and divergence The next chapter presents the summary of the findings, conclusions and recommendations

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION, AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of the research findings discussed in Chapter four, the study conclusions, and recommendations for policy, practice, and further research. The study aimed to explore the determinants of dissertation completion of education doctoral studies in public universities in Kenya. The study was located in the field of education curriculum and conducted in four selected public universities in Kenya. This research was guided by four research questions: (i) To what extent are doctoral education students prepared for the completion of their doctoral dissertations? (ii) What is the level of accessibility and use of learning resources by doctoral education students for the completion of a doctoral dissertation? (iii) What are the perceptions of doctoral education administrators on the completion of a doctoral dissertation? (iv) What are the experiences of doctoral education students and supervisors in the completion of doctoral dissertation?

In an attempt to answer the research question, the study used a mixed method approach located within a pragmatist philosophical view, and the study was positioned as a convergent parallel research design. The research tools employed to gather data were: a questionnaire, focus group discussion, and semi-structured interviews. The study respondents comprised fifty-five doctoral students from the four purposively selected public universities, thirty-two supervisors (eight from each university), sixteen heads of department (four from each university) and four deans of post-graduate studies in the faculty of education (one from each university).

The quantitative data in this study were analyzed using descriptive statistics, percentages, means and standard deviations were presented in tables followed by descriptions. The qualitative data were analyzed thematically based on the guidelines of Bogdan & Biklen

(2007) and methodological approach of Clerk and Brown (2017) on inductive process of thematic analysis. Categories and themes sought from the coded data were presented and discussed. A summary of these findings is provided in the section that follow.

5.1 Summary of the Study Findings

A summary of the study findings is presented based on each research objectives as outlined in the introduction chapter.

5.1.1 The extent of preparedness of doctoral students for dissertation completion

Both quantitative and qualitative data were analysed in response to the first research question: *to what extent are doctoral students in education prepared for the completion of their doctoral dissertations?*

Doctoral students' descriptive statistics (Mean = 2.16, SD = 0.96) reflect that generally, doctoral students' felt poorly prepared for dissertation completion. Statistics revealed that doctoral students have limited readiness in key areas such as; background research knowledge, academic writing matching doctoral studies, social and communication skills and engaging with supervisors. Most students expressed challenges in meeting research-related expenses, maintaining motivation, and attaining research independence, including reporting their own progress to the department. Doctoral student flexibility, resilience, and innovation were similarly rated low with 52.7% to 58.2% of respondents showing concern. Critical research strategies such as development of digital competence for dissertation writing, meeting academic financial obligation, and meeting deadlines were reported to be developed to a very small extent by doctoral students.

The analysis of supervisors' responses (Mean = 2.11, SD = 0.79) indicates that supervisors perceived that doctoral students were generally prepared to a small extent

for completing their dissertations. Supervisors noted that students show very limited readiness in several critical research areas which include academic writing, digital research skills, promptness in reporting progress and the ability to meet deadlines. Additionally, students were perceived to be inadequately prepared in essential soft skills such as proactive communication, flexibility, resilience, innovation and independence in research with 37.5% to 43.8% of supervisors expressing concerns in these areas. Up to 68.8% of supervisors identified financial preparedness as a significant challenge indicating that students struggled to meet research-related expenses. However, supervisors perceived that a moderate level of student preparedness was observed in doctoral students' social skills (59.4%), maintaining motivation (37.5%) and background research knowledge.

The results of the qualitative data gathered, were categorised under the following themes: *background research knowledge and skills, psychosocial preparedness, financial preparedness and doctoral student motivation to research tasks.*

Doctoral students and supervisors perceived that coursework phase of education PhD adds rigor to the study and gives a solid foundation to the research phase of the study. Respondents across the four universities perceived that doctoral students who enrol for PhD studies shortly after their master's studies are better placed on research knowledge and skills and are likely to complete their doctoral studies early contrary to doctoral students who enrol long after their master's degrees. Results illustrated that there is a concern about the level of doctoral students' digital literacy especially on data analysis skills. The findings from doctoral students revealed that the journey to doctoral dissertation completion is lonely and demanding in terms of both time and resources

and that completion on time calls for goal setting, commitment, digital literacies, and resilience.

The findings revealed that more often doctoral students experience interruptions from psychosocial issues which derail focus and coherence in writing the dissertation. These issues include: lack of social support from family and or faculty, unconducive work environment, health and mental issues, lack of resilience, anxiety and other competing responsibilities. It was also found that doctoral students experience difficulty in balancing time demands from employment and research consequently causing delay in dissertation completion. The findings illustrated that most doctoral students are not independent, lack motivation and are not open to their advisors concerning the challenges they face on the study. Supervisors on the other hand perceived that doctoral students lack initiative to maintain communication with their supervisors concerning their progress and consultation related to the project.

Doctoral student respondents in the four universities perceived that fees and research costs of doctoral studies are expensive to doctoral candidates whom majority are self-sponsored with low income and competing needs. They pointed out that the dissertation phase of research has more expenses such as; the development of research instruments, travel expenses while collecting data where applicable, purchase of data collection equipment, data analysis and other hidden expenses like publishing which can compromise the quality of research if not addressed. The views of both students and supervisors portrayed the aspect of financial constraints among doctoral students carrying out doctoral research.

The findings revealed that student motivation compels progress at every winding stage of the doctoral dissertation writing and makes a difference in the completion of doctoral

studies. Student respondents expressed concerns that tracking of student progress by the university faculty and implementation of a formal and structured supervision framework is not fully implemented suggesting that universities should design policies that hold both the supervisor and the student responsible for delayed completion. The findings also revealed that other responsibilities of doctoral students occupy most of their time leaving them with little or even no time to focus on their research. Academic staff perceived that the need for timely completion of doctoral studies calls for faculty motivation through a better remuneration, supervision facilitation and conducive working environment. They proposed that teaching workload of the postgraduate supervisors should be balanced to ensure that they engage in productive supervision.

5.1.2 The level of accessibility and use of learning resources by doctoral students

In order to answer this research question, what is the level of accessibility and use of learning resources by doctoral education students for the completion of doctoral dissertations? Quantitative and qualitative data from students and supervisors were analysed descriptively and thematically, respectively. The analysis of doctoral student responses (mean=1.9869, SD=0.8417) and supervisors' responses (mean=2.1523, SD=0.7614) indicates that doctoral students and supervisors generally perceived that doctoral students experienced challenges in accessing and using research resources for the completion of dissertation in their institutions. Doctoral students and supervisors expressed inadequacy in accessing and using of current hard copy and electronic publications in their libraries however, supervisors perceived that hard copy publications were available in their libraries to a moderate extent. Most students and supervisors noted that mentorship of doctoral students by peers and supervisors is weak, opportunities for research such as workshops, seminars and conferences were rarely organised and students were involved to a very small extent.

Additionally, respondents noted that exchange program opportunities for students were under explored, collaborative supervision is not well established and doctoral candidates did not actively participate in interactive learning platforms such as universities' alumni networks, research sites and e-learning portals. Whereas the majority of the doctoral students perceived that access to the university repository was to a moderate extent, supervisors felt inadequate access to the university repository by doctoral students. Majority of the students and supervisor respondents showed concern on limited capacity building for supervisors in their institutions. These findings depict limited access and use of research resources by doctoral students for completion of dissertations, a situation that necessitates improvement of research infrastructure in universities in order to boost early completion of doctoral dissertations.

Thematically analysed qualitative data from doctoral students and supervisors generated three themes: *Limited digital skills, insufficient research resources and inadequate student mentorship.* Student respondents pointed that most doctoral students do not have sufficient digital skills to aid in searching research resources and are ignorant on research information sites relevant to research. Both doctoral students and supervisors concurred that inadequacies in these technological skills could hinder the progress of the doctoral dissertation. Doctoral students and supervisors highlighted the necessity of integrating critical research skills into doctoral students' training and organization of regular workshops and seminars for support.

Student participants also highlighted that students' proficiency in using computer software for data analysis is low stating that students experience difficulties causing delays in data analysis as a result of poor skills in application of the software. The insufficient analysis skills negatively affect the quality of the research out-put and duration to completion. In addition to the students' concerns, supervisors also pointed

that doctoral students lack skills in the use of critical research software such as referencing software, analysis techniques with the use of software pointing that there is need for higher education institutions to organize continuous training of postgraduate students and supervisors on access to resources throughout the study life-cycle in order to reduce time to dissertation completion.

Most of the students in all the four universities pointed that current research resources in their institutions' libraries are inadequate. Students and supervisor responses suggests that the universities' investment in research resources do not meet the needs of the doctoral students and as a result contributes to delay in doctoral degree completion. Almost all doctoral students emphasized the need for universities to invest in recent electronic research resources which are vastly in use by most students and supervisors.

Whereas it is a requirement for doctoral students to publish articles before completion of a doctoral degree, it was clear from the students that their institutions do not take the initiative to formally advice doctoral students on accredited peer reviewed publishers where students can publish their research. A few students who consequently proposed the need for universities to take an active role in guiding doctoral students attested to have been deceived by unaccredited publishers to publish low quality papers expensively.

The aspect of inadequate students' interactive forums was brought out strongly as a factor of study completion. Doctoral students and supervisors asserted that research interactive forums such as seminars, colloquiums, workshops, alumni networks and conferences are not regularly organised by their universities although they play a critical role in mentoring and preparing doctoral students for dissertation completion.

Respondents from all the four universities stated that these forums could enable students and faculty members to share their research knowledge and skills, study experiences, challenges, peer guide and mentorship however such forums are not prioritised due to inadequate finances. Participants opined that universities should schedule regular research forums including active alumni networks and alumni events and consider affordable charges for students as they motivate students to progress.

Most doctoral students and supervisors pointed that networking and exchange programs with other universities have not been explored in their universities although they appreciate that these are research avenues that may bring about doctoral student advancement in research skills and study progress if they are used. Most of the doctoral students also pointed that there is a weak link between doctoral students and their peers as well as with faculty members during dissertation writing that makes the doctoral journey to be very lonely and isolated.

5.1.3 Perceptions of education administrators on completion of doctoral dissertation

From the qualitative data gathered to respond to the third research question: what are the perceptions of doctoral education administrators on the completion of doctoral dissertations*?* four themes were generated: *inadequate research opportunities, inadequate capacity building, poor facilitation of supervision practice and supervision inhibiting factors.*

This research revealed that administrators perceived that different factors come into play in the completion of doctoral dissertations and each one of them has an impact on the study pace and general progress. From the study findings, the aspect of minimal doctoral student engagement in academic activities such as workshops, seminars and

conferences was brought out strongly by nearly all administrators from the four universities. Although the administrators recognise that these forums are very crucial in research mentorship and boost research and writing skills for completion of doctoral studies, they lamented that these forums are not regularly organised by their institutions.

The study also showed that doctoral students are on full-time employment at the same time on full-time study programme. These competing responsibilities over-engage the students limiting the time for academic writing, preparation and participation in research activities whenever there are opportunities. It also emerged that doctoral students have inadequate academic writing skills matching doctorate standards. It was clear that students have challenges in writing scholarly work for publication due to limited exposure to research.

It is also important to note that administrators lamented that their institutions have dormant alumni associations. They expressed that engagement of alumni in research activities has not been maximised in their institutions yet it could be used as a strong mentorship opportunity in which those who have graduated in various levels including doctorate degrees could give back to the universities through motivation and mentorship of doctoral students for timely study completion. Administrators reiterated that active and structured alumni associations though missing in their universities is a resource that can be tapped to benefit the entire institution through the organization and facilitation of research activities such as workshops and conferences which would enable doctorate students to share research knowledge, skills and experiences.

Concerning capacity building for supervisors, administrators from all the universities expressed concern on limited capacity building opportunities for supervisors in their institutions stating that universities did not emphasize on regular training that would

improve changing doctoral supervisory strategies. Administrators articulated that student needs and challenges are changing with paradigm shifts in research, a situation that demands effective and collaborative supervision that can only be achieved through continuous capacity building for supervisors. Administrators pointed that inadequate capacity building for supervisors has compromised the efficiency and expertise of supervisors and impacts negatively on completion of doctoral dissertations. Administrators perceived that universities need to prioritize capacity building and training opportunities for supervisors through implementation of structured and formal training that positively impacts on supervisors' ability to support PhD students for the timely completion of their dissertations.

Findings also established that there are limited networks and collaborations among the doctoral supervisors and doctoral students in universities. Participants perceived that although it was a rare practice in their institutions, they valued the aspect of collaboration and networking as one of the ways of enhancing postgraduate supervision and student motivation suggesting that it should be encouraged by all institutions. The findings revealed that supervisors are demotivated by issues of low remuneration and delayed payment of salaries. Administrators perceived that the issue negatively affects the efficiency of the supervisors and motivation to perform engaging supervisory tasks causing delay in dissertation completion.

Findings also revealed that there is inadequate facilitation of post-graduate supervision by their institutions citing financial constraints caused by poor management, weak administrative structure and inefficient leadership. Administrators raised concern based on the study findings, supervision at dissertation stage is still based on informal structure where mode of consultation, place, time, communication and feedback

between students and supervisors are informally negotiated suggesting that there is need for streamlining and transformation.

Participants perceived that a doctoral study is academically, financially and emotionally demanding and that many students face challenges that require supervisors' support and guidance throughout the dissertation stage. Findings indicated that consistent supervisor support in the course of dissertation writing is paramount and many students delay or dropout at the dissertation stage for lack of the support. The findings clearly outline that doctoral candidates' success is hindered by lack of academic, social, psychological and financial support.

The study findings also showed that there is inadequacy of learning infrastructure for post graduate students and supervisors in their institutions an issue that most of them perceived to compromise on the working conditions of supervisors and consequently deterring success of doctoral candidates. It was also clear from the findings that shortage of qualified and experienced supervisors despite increase in student enrolment is an issue that universities still struggle with. Participants attributed this shortage to many supervisors exiting teaching to venture into other lucrative positions such as political positions, teaching in highly paying private universities and seeking higher government appointments without proportionate replacement and promotions. The participants argued that the high turn-over leads to change of supervisor affecting supervision consistency.

It is clear from the findings that supervisors are assigned many competing responsibilities such as: teaching, administration, evaluation and supervision of many postgraduate students among others, these hamper their effectiveness in doctoral supervision. Administrators perceived that these many responsibilities divert the

attention and concentration of the supervisor away from the students' projects, participants suggested that a policy guiding student to supervisor ratio should be implemented strictly. The findings also showed that major cause of delay in doctoral study completion is the students' non commitment to the study. Respondents expressed that students do not balance and prioritize the study among other responsibilities competing for their limited time and resources.

5.1.4 To explore supervision experiences of doctoral education students and supervisors in the completion of doctoral dissertations

In order to answer this research objective, qualitative data gathered from the students and supervisors' semi-structured questionnaires and supervisors' focus group discussions were thematically analysed and the following themes generated; *student-supervisor collaboration, inadequate academic writing skills, academic malpractices and support mechanisms.*

The study findings revealed that students and supervisors perceived that communication and feedback between them at every stage of dissertation writing builds a relationship that is critical to timely completion of a doctorate degree. It is also clear from the findings that universities do not have a formal and structured mode of communication between students and supervisors however, it is based on the common understanding between the two parties. It was clear from the findings of the study that communication between doctoral students and supervisors is not effective and student and supervisor respondents advocate for openness in communication.

It is worth noting that respondents perceived that power difference between students and supervisors and between co-supervisors is an experience that universities still battle with. Participants hold that power dynamics between doctoral students and their

supervisors cause fear, anxiety, discomfort and lack of freedom to freely share study ideas and challenges; power difference between co-supervisors limits the students' benefit from diverse expertise of all the advisors. They suggested that both students and supervisors should develop open communication and continuous consultation, good working relationship and collaborative supervision which act as a medium of continuous consultation, exchange of ideas and objectively critiquing students' work in order to close the gap.

The study findings also showed that some supervisors have limited research expertise and this poses a challenge in supervision. Respondents suggested that supervisors should be enlightened on the current trends in research and trained on different methodologies in order to give quality research out-put, prepare doctoral students for careers and pave way for early completion of doctoral studies.

Concerning research skills of doctoral students, findings revealed that students have a limitation in writing quality scholarly work and making contribution to the already existing body of knowledge. Student participants attributed limited research skills to poor reading culture, weak support system from faculty and supervisors including limited access to research resources and limited time to focus on the study. The findings from supervisors established that doctoral students have not fully grown to independent and autonomous researchers and that doctoral students' research prowess determines the rate at which the study progresses and time to completion.

Student participants perceived that doctorate degree demands for scientific rigour in research including publishing scholarly work such that long duration between masters and Ph. D studies do not give efficient prerequisite knowledge and skill for doctoral studies. It is also noted by supervisor respondents that doctoral students have weak

research background attributed to students delegating their study research activities such as data collection and analysis to research assistants. This may result to low quality research which causes failing in thesis defence leading to delay in study completion.

The study revealed that institutions do not emphasize on effective guidance of post-graduate students on general integrity and rigour of the whole research process however they lay more emphasis on detecting malpractices such as plagiarism index on final product that is dissertation. The findings from the study also illustrates that doctoral students have a challenge in writing scholarly work such as dissertation due to poor skills in scientific language. Supervisor respondents hold that quality of doctoral dissertation of doctoral candidates is still low articulating that there is need to cultivate the virtue of academic integrity among doctoral students.

It is important to note that experiences of most doctoral students showed that there is subjective evaluation of doctoral dissertation amongst some lecturers depicted from a huge deviation between the marks awarded by examiners of one dissertation. Participants suggest that there should be strict implementation of clear guidelines and policies governing evaluation in institutions of higher learning.

The study findings revealed that when students lack motivation, encouragement, and guidance from the faculty and fellow students during dissertation phase of the study they experience loneliness and progress to completion is slowed. The Participants proposed structured research activities that brings students and supervisors together for research interactions; creation and sharing of knowledge as well as support for early completion of the studies.

It was also clear from the findings that pressure from social issues, overwhelming family responsibilities and, lack of family support are some of the issues that derail

doctoral students' progress in dissertation writing. Generally, during dissertation phase of the study most doctoral students experience loneliness, lack of motivation, weak links to peers for encouragement and support, as well as inconsistent follow-up and guidance from the faculty members. Participants proposed structured research activities that bring interaction between doctoral students and other scholars. The respondents advocate that doctoral students should be guided on how to strike a balance between study and life experiences and remain focused for timely study completion.

5.2 Conclusions

In this section, conclusions are provided based on the findings of the study. They reflect the implications of the study findings and are systematically presented according to the study's' research questions.

5.2.1 The extent of preparedness of doctoral education students for the completion of doctoral dissertations

From the findings on the extent of preparedness of doctoral education students for the completion of doctoral dissertation the following conclusions were drawn:

Generally, doctoral students perceived to be prepared for completion of doctoral dissertation to a small extent (mean=2.16, SD=0.96) with the mean of all items ranging between 2.64 and 1.69. The findings from the supervisors also depict low levels of doctoral students' preparedness for the completion of dissertation (mean=2.11, SD= 0.79) with the mean of all items ranging from very small extent to moderate extent (1.0-3.0). This imply that students and supervisors perceived that doctoral students are not adequately prepared for dissertation completion.

Study findings revealed that doctoral students have limited skills on data analysis. The findings also highlighted that the journey to doctoral dissertation completion is lonely

and demanding in terms of both time and resources and that timely completion calls for goal setting, commitment, continuous training on digital skills, and resilience.

The findings established that psychosocial issues which include: lack of social support from family and or faculty, unconducive work environment, health and mental issues, lack of resilience, anxiety and other competing responsibilities derail student focus and coherence in writing dissertation. The findings also illustrated that most doctoral students are not independent, lack motivation and are not open to their advisors concerning the challenges they face on the study.

Doctoral students expressed concerns that there is poor implementation of formal structures of supervision and tracking of student progress by the university faculty suggesting that universities should design policies that hold both the supervisor and the student responsible for delays in study completion. Findings also revealed that academic staff perceived that the need for timely completion of doctoral studies calls for faculty motivation through a better renumeration, improved facilitation of supervision and conducive working environment. The academic staff proposed a balanced workload for supervisors in order to ensure that they engage in productive supervision.

It was also clear that doctoral students who majority are self-sponsored are overwhelmed by fees and research costs of doctoral studies causing delay in dissertation completion and suggests that institutions need to explore more scholarship opportunities for students.

5.2.2 Level of accessibility and use of learning resources by doctoral education students for the completion of doctoral dissertations

From the findings on doctoral students' access to and use of research resources, the following conclusions were made:

Student and supervisor responses (mean=1.9869, SD=0.8417) and (mean=2.1523, SD=0.7614) respectively indicates that doctoral students and supervisors generally perceived that doctoral students experienced challenges in accessing and using research resources for the completion of dissertation in their institutions. Both the students and supervisors, pointed that the current research resources in their institutions' libraries are inadequate. This suggests that the universities' investment in research resources is yet to meet the research needs. There is need for universities to invest more in recent electronic research resources which are highly in use by most researchers.

Doctoral students have limited digital skills, which compromises the access to research resources, impedes referencing and inhibit the collection and analysis of data. Doctoral students and supervisors proposed continuous integration of these critical research skills in doctoral students' training and prioritize the organization of regular workshops and seminars for student and supervisor support.

Research interactive forums play a critical role in mentoring and preparing doctoral students for dissertation completion however, doctoral students and supervisors perceived that universities have not prioritised it due to inadequate finances. Participants suggest that universities should consider scheduling regular research forums including active alumni networks and events to support research and doctoral studies. It was noted that the link between doctoral students and their supervisors should be strengthened through training and collaboration.

5.2.3 Perceptions of education administrators on completion of doctoral dissertation

Based on the study findings, universities have limited research engagement opportunities and intellectual interactions which limits doctoral student mentorship and progress. Inadequate capacity building opportunities and collaborations for supervisors leads to inefficient supervision practice. There is need for universities to establish a strong student and supervisor support system in order to make supervision practice efficient for completion of dissertation. Institutions are faced with a myriad of supervision inhibiting factors that include: shortage of qualified doctoral supervisors, high supervisor workload and low levels of commitment by doctoral students who are overwhelmed by other responsibilities.

5.2.4 Experiences of doctoral education students and supervisors in completion of doctoral dissertation

From the study findings on experiences of doctoral education students and supervisors in completion of doctoral dissertation, the following conclusions were drawn;

The study concluded that effective student-supervisor collaboration in dissertation writing has not been achieved in the universities. Gaps in communication and feedback between doctoral students and supervisors is still a common experience in both parties. Prioritizing training of supervisors on different research methodologies could boost supervisors' expertise and enlighten them on current research trends. It was also clear from the findings that a good student-supervisor collaboration is achieved through open communication, continuous consultation, good working relationship and collaborative supervision.

The study further concluded that doctoral students have a limitation in writing quality scholarly work attributed to limited research skills, poor reading culture, weak support system from faculty and supervisors, limited access to research resources and limited time to focus on the study. The findings also revealed that universities placed less emphasis on effective guidance of post-graduate students on general integrity and rigour of the whole research process. Doctoral students were also faced with a challenge of poor skills in scientific language in which supervisor respondents cited as the main cause of poor-quality dissertation and consequently leads to low research output.

Finally, it was clear that during the dissertation phase of the study most doctoral students experience loneliness, lack of motivation, encouragement, and guidance from the faculty and fellow students. Participants proposed structured research activities that bring interaction between doctoral students and other scholar. Pressure from social issue, overwhelming family responsibilities and, lack of family support are some of the challenges that derail doctoral students' progress in dissertation writing.

5.3 Recommendations

Based on the findings derived from the four research questions, the study made the following key recommendations to inform higher education policy and practice in order to improve time to dissertation completion and research output in universities.

1. There is need for universities to strengthen student and supervisor support system. Departments should organize for doctoral student training that will build doctoral students' resilience and commitment towards achieving research goals. Universities need to review doctoral study curriculum to include integration of critical digital skills for carrying out research. In addition, universities should

explore for more scholarship opportunities for students in order to reduce drop-out rates and achieve timely completion of a doctorate degree.

2. Inadequate research resources and challenges of research resource inaccessibility negatively impact on students' progress in dissertation writing and the quality of the research output. Universities therefore need to invest in a wide range of worthwhile research resources for both students and supervisors and improve on research resource accessibility. In order to foster quality research output and timely completion of dissertation, universities should provide regular and structured research opportunities such as seminars, workshops and conferences in order to improve research knowledge and skills of post-graduate students. In addition, universities should engage alumni associations in research activities; this will go a long way in giving support and mentorship to doctoral students and will also minimize the students' feeling of loneliness and isolation during dissertation writing.
3. It is necessary for institutions of higher education to invest in the necessary infrastructure in order to improve the working environment for supervisors and administrators. Facilitation of supervision should also be enhanced; supervisors should be offered a better renumeration and prompt pay in order to reduce the academic staff turn-over and improve their efficiency. Universities should also employ more academic staff in order to moderate the supervisors' workload and meet the needs of rising student enrolment creating more time for student-supervisor research engagements.
4. Universities should strengthen student-supervisor collaborations by fostering a formal structure of communication and feedback between students and supervisors. The department should track the progress of post-graduate students,

make a needs assessment with an aim of finding solutions to the challenges experienced. There is need for universities to prioritize effective training of supervisors to foster expertise in supervision practice and research methodologies. Departments and supervisors should offer guidance to doctoral students on how to balance dissertation writing with other life experiences and strengthen persistence to completion among doctoral students. Doctoral students and supervisors advocated for institutional cultivation of virtues of academic integrity among post-graduate students throughout the study.

5.4 Suggestions for Further Research

Based on the findings, the study recommends the following for further research:

1. The current study was focused on determinants of dissertation completion in doctoral education in selected public universities in Kenya, a comparative study between education and other faculties may be done to give another perspective of the inquiry.
2. The scope of the current study included public universities in Kenya, a comparative study between public and private universities in Kenya may be carried out in order to establish if there is any significant difference in determinants to degree achievement.
3. The current study involved doctoral students at the dissertation stage of the study, another study can be carried out to include all post-graduate students at all stages of the study in order to widen the understanding of determinants of study completion.

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APPENDICES

Appendix I: Questionnaire For Education Doctoral Students

PURPOSE OF THE STUDY

Janet Chepchirchir Ronoh is a doctoral student carrying out a **mixed method study on: Determinants of dissertation completion of education doctoral studies in selected Kenyan public universities.** The researcher is carrying out this study for the award of doctoral degree and also seeking to make literature contributions on the conversation of completion of doctoral studies in Kenyan higher institutions as well as to inform improvements in doctoral dissertation completion

INSTRUCTIONS

You have been randomly selected to be part of this study and as a doctoral student, we know you value much doctoral training. Therefore, you are kindly requested to honestly complete all parts of this questionnaire. We would like to inform you that this questionnaire is strictly personal. It is helpful for us if you complete it individually, openly and honestly. Please note that this questionnaire is made up of four parts. Part one and part two are made of close-ended questions and you are requested to answer by ticking in appropriate space while for part three and four which are made up of open-ended questions you are requested to provide information in the provided spaces.

Your answers will be treated with strict confidentiality and will be used only for the purpose of this study. We will appreciate if you sign the following consent form. **Note**: Do not write your name on the questionnaire.

For any clarification on any aspect of this study and questionnaire, do not hesitate to contact:

Janet Chepchirchir Ronoh

Moi University School of Education

Doctoral student

DPcs/4196/20

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CONSENT FORM

I, agree to participate in the study entitled "**Determinants of dissertation completion of education doctoral studies in selected Kenyan public universities**". I have understood the purpose of this research and I know very well that participation is voluntary, individual and confidential.

Signature of the respondent: ……. Date: June, 2022.

PART I: DEMOGRAPHIC INFORMATION

Please answer by ticking in the provided space

Gender: Male [ ] Female [ ] Any other [ ]

Department: Curriculum Instruction and Educational Media [ ] Educational Psychology

[ ] Educational Foundations [ ] Administration Planning and Management [ ]

Nature of study programme: Research based [ ] Coursework and Research based [ ] Other (specify) [ ]

Age: 29 and Below [ ] 30-39 [ ] 40-49 [ ] 50-59[ ] 60 and Above[ ]

Mode of Study: Full time [ ] Part time [ ] Blended mode [ ] Online [ ] Other specify [ ]

Nationality: Citizen student [ ] International student [ ]

Reasons for choosing to study at the current university: Convenience (i.e. accessibility, distance etc.) [ ] Amount of fees [ ] High completion rates of doctoral studies [ ] Mode of study [ ] Other reasons (specify) [ ]

What was your motivation to pursue a PhD degree? To get employment [ ] Get promotion in the current employment [ ] Change employment to a better paying one [ ] expand own research knowledge and skills [ ] other reasons [ ]

Sponsor of your doctoral study: Self sponsored [ ] Scholarship by the University of study [ ] Sponsorship by other individuals [ ] Scholarship by an organization [ ] Other sponsorship e.g. Bursary, C. D. F etc. specify [ ]

Nature of employment while undergoing the study: Full time employment [ ] Part time employment [ ] Unemployed [ ] Study leave [ ] Other specify [ ]

PART II: DOCTORAL STUDENTS' PREPAREDNESS FOR COMPLETION OF DOCTORAL STUDIES

1. Please rate the level of your preparedness for the completion of your dissertation based on the themes below. You would say: 1=Very Small Extent, 2: Small Extent, 3: Moderate Extent, 4: Great Extent, 5: Very Great Extent. Tick (V) in the right box.						
Doctoral student preparedness for dissertation completion		1	2	3	4	5
1	Back ground research knowledge; reading widely on the research topic and methods					
2	Knowledge and skills on academic writing and publishing					
3	Adequate writing skills matching doctoral studies					

4	Social skills; ability to network and connect with others for mutual benefit					
5	Pro-activity; ability to initiate and maintain communication with supervisors					
6	Promptness in reporting own progress reports to the department					
7	Independence; ability to set goals and work to achieve them with minimum supervision					
8	Financial preparation; ability to pay doctoral study fees on time					
9	Ability to meet data collection, analysis and other research expenses					
10	Motivation to tasks; motivation to perform study/research tasks/assignments and complete on time in the era of distractions					
11	Flexibility; ability to adapt to research dynamics and technological change					
12	Resilience; ability to start and progress with study despite challenges					
13	Innovation; ability to devise new ways of solving problems					
14	Adequate digital skills for dissertation writing					
15	Meeting deadlines when responding to supervisors' feedback					
16	Meeting deadlines when submitting research work to supervisors					
2. Rate the extent to which you have an access to and use research resources for the completion of doctoral dissertation in your institution You would say to: 1: Very Small Extent, 2: Small Extent, 3: Moderate Extent, 4: Great Extent, 5: Very Great Extent. Tick (V) in the right box.						
Access to and use of research resources		1	2	3	4	5
1	Availability of current hard copy research books and other research publications in the library					
2	Accessibility of current hard copy research books and other research publications in the library					
3	Availability of current electronic research resources in the library					
4	Accessibility of current electronic research resources in the library					
5	Access to the university repository					
6	Existence of the link between students and faculty members for support and mentorship during research					
7	Existence of the link between students and peers for support and mentorship during research					

8	Presence of university organized resourceful academic activities such as workshops, seminars and conferences					
9	Students' active participation in university organized research activities such as workshops, seminars and conferences					
10	Active participation in interactive learning platforms such as university portals, alumni networks etc.					
11	Availability of student learning exchange programmes					
12	Presence of collaborative supervision					
13	Regularly organized capacity building for supervisors					

PART III: EXPERIENCES OF DOCTORAL EDUCATION STUDENTS AT THE DOCTORAL DISSERTATION STAGE OF STUDY

As a doctoral student, what are your experiences related to writing a doctoral dissertation with regard to the following areas:

In your own view how prepared are you in terms of research knowledge/skills required in dissertation writing at the time of commencing and during your dissertation writing? And what is the source of your research prerequisite knowledge if any?

In your experience/opinion, what psychosocial factor(s) if any do doctoral students go through?

How do the psychosocial factors if any impacts completion of doctoral dissertation?

In your view, does affordability of doctoral fee and research costs account for completion of a doctoral dissertation?
If yes how?

Does doctoral student motivation contribute to the completion of a doctoral dissertation?
If yes how?

Does the status of university infrastructure contribute to completion of doctoral dissertation?
If yes, what infrastructure and how?

Does access and use of university research resources play any role in education dissertation completion?

If any, how?

From you experience and point of view, is it possible for a university to have wide access to library/academic infrastructure but doctoral students fail to utilize them?
If yes, why?

Does student interactive forums and communication networks influence completion of doctoral dissertation?
If yes, how?

In your view and from your experience is Student /Supervisor relationship a factor of dissertation completion?

If yes, how?

Does communication and feedback between the student and supervisor have any influence in completion of a doctoral dissertation?

If yes, how?

In your opinion do university policies on post-graduate education influence completion of a doctoral dissertation?
If yes, how?

As a doctoral student, what are your experiences in dissertation phase of your study?

PART IV: RECOMMENDATIONS

What would be your recommendation for improvement of education doctoral dissertation completion in Kenyan public universities?

Thank you

Appendix II: Discussion Prompt For Supervisors

PURPOSE OF THE STUDY

Janet Chepchirchir Ronoh is a doctoral student carrying out a **mixed method study on: Determinants of dissertation completion of education doctoral studies in selected Kenyan public universities.** The researcher is carrying out this study for the award of doctoral degree and also as a way of making contribution in the literature on the conversation of completion of doctoral studies in Kenyan higher institutions as well as to inform improvements in doctoral dissertation completion

INSTRUCTIONS

You have been selected to be part of this focus group discussion for the study and as a doctoral students' supervisor, we know you value much doctoral training. Therefore, you are kindly requested to freely maximally participate in the focus group for maximum gathering of study information. I would also like to assure you that information received will be treated with strict confidentiality and at no time will your information be passed on to a third party rather it will be used only for the purpose of this study. We will appreciate if you sign the following consent form before commencement of the discussion.

For any clarification on any aspect of this study, do not hesitate to contact:

Janet Chepchirchir Ronoh

Moi University School of Education

Doctoral student

0723944360.

CONSENT FORM

I, M.R.A agree to participate in the study entitled "**Determinants of dissertation completion of education doctoral studies in selected Kenyan public universities**". I have understood the purpose of this research and I know very well that participation is voluntary, individual and confidential.

Signature of the respondent: M.R.A Date: …….2022.

PART I: DETERMINANTS OF COMPLETION OF DOCTORAL DISSERTATION

The focus group discussion was guided by the following questions supported by prompts:

As a doctoral supervisor what are your experiences in supervision with regards to completion of doctoral dissertation in the following areas?

Students' prerequisite content/knowledge/skills in dissertation writing

Students and supervisors' psychosocial position in doctoral dissertation completion

Students' financial abilities to support their doctoral dissertation completion

Students' motivation to research task, assignments and projects for doctoral dissertation completion

Doctoral students' accessibility and use of university research infrastructure for doctoral dissertation completion

Availability and accessibility of doctoral students' interactive forums, communication platforms and networks in completion of doctoral dissertation

Student /supervisor relationship and completion of doctoral dissertation

Communication and feedback between students and supervisors, students and managers of doctoral studies

Adherence and implementation of policy, rules and regulation governing doctoral studies
Collaborative supervision in completion of doctoral dissertation

PART II: RECOMMENDATIONS

What would you recommend for improvement of doctoral dissertation completion?

Appendix III: Interview Schedule for Education Administrators in Charge of Doctoral Studies (Chairs Of Departments and Post-Graduate Deans School of Education)

The following questions guided the interview of doctoral education administrators. However, the researcher prompted the interviewees to gather more information on determinants of dissertation completion of education doctoral students in selected public universities.

1. In your perspective, are doctoral students prepared for dissertation completion?
2. In your opinion what are the factors that determine education doctoral dissertation Completion?
3. In your view do doctoral students have access to and use of research resources for dissertation completion?
4. How prepared are the doctoral students for compliance with doctoral students' policy, rules and regulations and deadlines governing doctoral studies?
5. In your opinion does doctoral education management have an influence on education doctoral dissertation completion?

Appendix IV: Questionnaire For Education Doctoral Supervisors

PURPOSE OF THE STUDY

Janet Chepchirchir Ronoh is a doctoral student carrying out a **mixed method study on: Determinants of dissertation completion of education doctoral studies in selected Kenyan public universities.** The researcher is carrying out this study for the award of doctoral degree and also as a way of making contribution in the literature on the conversation of completion of doctoral studies in Kenyan higher institutions as well as to inform improvements in doctoral dissertation completion

INSTRUCTIONS

You have been selected to be part of this study and as a doctoral students' supervisor, we know you value much doctoral training. Therefore, you are kindly requested to honestly complete all parts of this questionnaire. We would like to inform you that this questionnaire is strictly personal. It is helpful for this study if you complete it individually, openly and honestly. Please note that this questionnaire is made of four parts. Part one and part two are made of close-ended questions and you are requested to answer by ticking in appropriate space while for part three and four which are made of open-ended questions you are requested to provide information in the provided space.

I would also like to assure you that your answers will be treated with strict confidentiality and at no time will your information be passed on to a third party rather it will be used only for the purpose of this study. We will appreciate if you sign the following consent form.

For any clarification on any aspect of this study, do not hesitate to contact:

Janet Chepchirchir Ronoh

Moi University School of Education,

Doctoral student,

Mobile Number 0723944360.

CONSENT FORM

I, D. S. A agree to participate in the study entitled "**Determinants of dissertation completion of education doctoral studies in selected Kenyan public universities**". I have understood the purpose of this research and I know very well that participation is voluntary, individual and confidential.

Signature of the respondent: ……... Date: …….2022.

Part I: Demographic information

Please answer by ticking in the provided space

Gender: Male [ ] Female [ ] Any other [ ]

Department: Curriculum Instruction and Educational Media [ ] Educational Psychology [ ] Educational Foundations [ ] Administration Planning and Management [ ]

Age: 29 and Below [ ] 30-39 [ ] 40-49 [ ] 50-59 [ ] 60 and Above[ ]

Experience in post graduate supervision: 0-5 Years [ ] 6-10 Years [ ] 11-15 Years [ ]

Above 15 Years [ ]

Number of doctoral students supervised to completion: 2-5 [ ] 6-9 [ ]

10 and above [ ]

Terms of Employment: Permanent [ ] Contract [ ] Other forms [ ]

Part II: Doctoral students' preparedness for completion of doctoral studies

1. Please rate the level of preparedness of education doctoral students in your university for the completion of their dissertation based on themes below. You would say: 1=Very Small Extent, 2: Small Extent, 3: Moderate Extent, 4: Great Extent, 5: Very Great Extent. Tick (V) in the right box.						
Doctoral student preparedness for dissertation completion		1	2	3	4	5
1	Back ground research knowledge; reading widely on the research topic and methods					
2	Knowledge and skills on academic writing and publishing					
3	Adequate writing skills matching doctoral studies					
4	Social skills; ability to network and connect with others for mutual benefit					
5	Pro-active; ability to initiate and maintain communication with supervisors					
6	Promptness in reporting their progress reports to the department					
7	Independence; ability to set goals and work to achieve them with minimum supervision					
8	Financial preparation; ability to pay doctoral study fees on time					
9	Ability to meet data collection, analysis and other research expenses					

10	Motivation to tasks; motivation to perform study/research tasks/assignments and complete on time in the era of distractions					
11	Flexibility; ability to adapt to research dynamics and technological change					
12	Resilience; ability to start and progress with study despite challenges					
13	Innovation; ability to devise new ways of solving problems					
14	Adequate digital skills for dissertation completion					
15	Meeting deadlines when responding to supervisors' feedback					
16	Meeting deadlines when submitting research work to supervisors					
2. Rate the extent to which doctoral students have an access to and use research resources for the completion of doctoral dissertation in your institution **You would say to: 1: Very Small Extent, 2: Small Extent, 3: Moderate Extent, 4: Great Extent, 5: Very Great Extent. Tick (V) in the right box.**						
Access and use of Learning Resources		1	2	3	4	5
1	Availability of current hard copy research books and other research publications in the library					
2	Accessibility of current hard copy research books and other research publications in the library					
3	Availability of current electronic research resources in the library					
4	Accessibility of current electronic research resources in the library					
5	Access to the university repository					
6	Existence of the link between students and faculty members for support and mentorship during research					
7	Existence of the link between students and peers for support and mentorship during research					
8	Presence of university organized resourceful academic activities such as workshops, seminars and conferences					
9	Students' active participation in university organized research activities such as workshops, seminars and conferences					
10	Active participation in interactive learning platforms such as university portals, alumni networks etc.					
11	Availability of student learning exchange programmes					
12	Presence of collaborative supervision					
13	Regularly organized capacity building for supervisors					

PART III: PERCEPTIONS OF DOCTORAL SUPERVISORS ON COMPLETION OF EDUCATION DOCTORAL DISSERTATION

As a doctoral student supervisor, what are your perceptions on completion of education doctoral dissertation in your university with regard to the following themes:

Does the prerequisite knowledge/skills of education students a factor of dissertation completion?

If yes, how?

Do the psycho-social wellbeing of students and supervisors affect doctoral dissertation completion?

If yes, how?

In your view does doctoral students' ability to finance their study/sponsorship affect their doctoral dissertation completion?

If yes, how

What role does student and supervisor motivation play in completion of education doctoral dissertation if any?

What influence if any does accessibility and use of university library infrastructure have on education doctoral students' dissertation completion?

What role does students' interactive forums, communication platforms and networks have in regard to completion of doctoral dissertation if any?

Does student /supervisor relationship determine completion of education doctoral dissertation in your institution?

If yes, how?
Does efficiency in communication and feedback between students and supervisors influence completion of doctoral dissertation in your institution?

If yes, how?

In your opinion, how effective is communication and feedback between education doctoral students and supervisors, in your department?

Does collaborative supervision affect completion of education doctoral dissertation in your institution?

If yes, how?

Does the adherence and implementation of the institutional policy, rules and regulations governing doctoral studies affect completion of education doctoral dissertation?

If yes, specify how?

What are your experiences in the supervision practice?

Part IV: Recommendations

What would you recommend for improvement in completion of education doctoral dissertation?

Thank you for participating in this study

Appendix V: Research Permit

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: 719838

Date of Issue: 04/May/2022

RESEARCH LICENSE

This is to Certify that Mrs. Janet Chepchirchir Ronoh of Moi University, has been licensed to conduct research in Uasin Gishu on the topic: DETERMINANTS OF THESIS COMPLETION OF EDUCATION DOCTORAL STUDIES IN KENYAN PUBLIC UNIVERSITIES for the period ending : 04/May/2023.

Licence No: NACOSTI/P/22/17892

719838

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated Licence. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix VI: Plagiarism Awareness certificate

SR814

ISO 9001:2019 Certified Institution

THESIS WRITING COURSE

PLAGIARISM AWARENESS CERTIFICATE

This certificate is awarded to

JANET CHEPCHIRCHIR RONOH

DPCS/4196/20

In recognition for passing the University's plagiarism

Awareness test for Thesis **entitled DETERMINANTS OF DISSERTATION COMPLETION OF EDUCATION DOCTORAL STUDIES IN SELECTED KENYAN PUBLIC UNIVERSITIES with** similarity index of 8% and striving to maintain academic integrity.

Word count:50922

Awarded by

Prof. Anne Syomwene Kisilu
CERM-ESA Project Leader Date: 19/03//2025