

Postgraduate Students' Utilisation of Research Paradigms and Approaches in Theses and Dissertations Development at a Selected University in Tanzania

Moshi Amsi Mislay and Ahadi Mzumbwe Anania

Abstract

Research paradigms and approaches constitute the philosophical and methodological foundations of scholarly inquiry, shaping how researchers conceptualise problems, generate knowledge, and select appropriate methods; however, their utilisation in postgraduate theses and dissertations remains insufficiently examined in many African universities, including Tanzania. This study examined the level of utilisation of educational research paradigms and approaches in the development of theses and dissertations among postgraduate students at a selected university in Tanzania. Data spanning over four decades between 1985 and 2023 were generated through review of theses and dissertations found in university library. To determine the prevalence and distribution of research paradigms and approaches, a content analysis of theses and dissertations was conducted using descriptive statistics. Findings revealed varying degrees of utilisation of research paradigms and approaches among postgraduates in theses and dissertations development. Notably, positivism has limited application, while interpretivism and pragmatism are widely used. However, newer paradigms saw limited use.

Key Words: research paradigm, research methods, postgraduate students, educational research, theses, dissertations, Tanzania.

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Doctoral candidates prioritise research philosophies and methodological protocols, while master's students often focus solely on research approaches, overlooking paradigmatic stances. The study emphasises the need to enhance the application of contemporary research paradigms to improve educational research and address issues effectively in higher education institutions.

Résumé

Les paradigmes et approches de recherche constituent les fondements philosophiques et méthodologiques de la recherche scientifique ; ils déterminent la manière dont les chercheurs conceptualisent les problèmes, produisent des connaissances et choisissent les méthodes appropriées. Cependant, leur utilisation dans les mémoires et thèses de troisième cycle reste insuffisamment étudiée dans de nombreuses universités africaines, y compris en Tanzanie. Cette étude examine le niveau d'utilisation des paradigmes et des approches de recherche en sciences de l'éducation dans l'élaboration des mémoires et thèses chez les étudiants de troisième cycle d'une université tanzanienne. Des données couvrant plus de quatre décennies, entre 1985 et 2023, ont été recueillies grâce à l'examen des mémoires et thèses disponibles à la bibliothèque universitaire. Afin de déterminer la prévalence et la répartition des paradigmes et des approches de recherche, une analyse de contenu des mémoires et thèses a été menée à l'aide de statistiques descriptives. Les résultats ont révélé des degrés variables d'utilisation des paradigmes et des approches de recherche chez les étudiants de troisième cycle lors de la rédaction de leurs thèses et mémoires. Il convient de noter que le positivisme a une application limitée, tandis que l'interprétativisme et le pragmatisme sont largement utilisés. En revanche, les paradigmes plus récents ont été peu utilisés. Les doctorants accordent la priorité aux philosophies de recherche et aux protocoles méthodologiques, tandis que les étudiants en master se concentrent souvent uniquement sur les approches de recherche, négligeant les positions paradigmatiques. Cette étude souligne la nécessité de renforcer l'application des paradigmes de recherche contemporains afin d'améliorer la recherche en éducation et de traiter efficacement les problématiques au sein des établissements d'enseignement supérieur.

Mots-clés: paradigme de recherche ; approche de recherche ; étudiants de troisième cycle ; recherche en éducation ; thèses, mémoires.

Introduction

Research paradigms provide the philosophical foundations that shape how educational phenomena are understood and investigated. They encompass researchers' assumptions regarding the nature of reality (ontology), the

nature and sources of knowledge (epistemology), the procedures used to generate knowledge (methodology), and the role of values in the research process (axiology) (Lincoln et al., 2023; Paul, 2005; Phillips & Burbules, 2000). These assumptions influence every stage of inquiry, including the formulation of research questions, selection of research designs, choice of data collection methods, and interpretation of findings (Bridges, 2017; Khatri, 2020). Consequently, paradigms are not merely abstract philosophical concepts; rather, they constitute practical frameworks that guide the coherence and rigour of research practice.

Within educational research, the increasing diversity of methodological traditions has expanded opportunities for investigating complex educational issues from multiple perspectives (Cohen et al., 2018; Creswell & Creswell, 2022). However, this methodological pluralism also places greater demands on researchers to justify their methodological choices and demonstrate alignment between their philosophical assumptions and research procedures. For postgraduate students, who are expected to undertake independent scholarly inquiry through theses and dissertations, an understanding of research paradigms is particularly important because it contributes to the development of methodologically sound and defensible studies (Paltridge & Starfield, 2020). Failure to appreciate these philosophical foundations may result in inconsistencies between research questions, methodological choices, and interpretations, thereby compromising the credibility of research findings (Moon & Blackman, 2014). Accordingly, understanding research paradigms has become an essential component of postgraduate research training and an important indicator of research competence in higher education.

Research methodology training occupies a central position in postgraduate education because it equips students with the knowledge and skills necessary to design, conduct, and communicate scholarly research. Through research methods courses, postgraduate students are introduced to the philosophical foundations of inquiry, principles of research design, ethical considerations, data collection strategies, and analytical techniques required for independent investigation (Khaldi, 2017; Kivunja & Kuyini, 2017). Such training is intended not only to enhance technical competence but also to cultivate critical thinking and methodological reasoning that enable students to make informed decisions throughout the research process.

Nevertheless, international literature suggests that postgraduate students frequently experience difficulties in understanding methodological concepts, particularly those related to research paradigms, epistemological assumptions, and the relationships among methodology, methods, and

research design (Mkansi & Acheampong, 2012; Earley, 2014). These challenges are often compounded by lecturer-centred pedagogical approaches that emphasise the transmission of methodological content rather than active engagement with research practice (Lewthwaite & Nind, 2016; Matos et al., 2023). As a result, students may complete research methodology courses without fully understanding how philosophical assumptions inform methodological choices. Research has also shown that supervisory practices, disciplinary traditions, peer interactions, and prior educational experiences significantly influence students' methodological development (Daniel, 2022; Kaur et al., 2021). Consequently, while research methodology training remains an indispensable component of postgraduate education, concerns persist regarding its effectiveness in fostering deep conceptual understanding and facilitating the practical application of research paradigms and approaches in students' own research endeavours.

The development of postgraduate education in Tanzania has been shaped by broader efforts to expand higher education and strengthen national capacity for research, innovation, and socioeconomic development. Since the liberalisation of higher education in the 1990s, Tanzania has experienced substantial growth in the number of universities and postgraduate programmes, supported by policy initiatives such as the Education and Training Policy and the National Higher Education Policy, which advocate for increased access to advanced education and the enhancement of academic quality (Ministry of Education, Science and Technology [MoEST], 2023; Tanzania Commission for Universities [TCU], 2025, 2020). This expansion has contributed to a steady rise in postgraduate enrolment, reflecting increasing demand for highly skilled professionals and researchers capable of addressing national development priorities (TCU, 2025).

Despite these achievements, concerns remain regarding the adequacy of institutional resources required to sustain quality postgraduate education. Studies have highlighted challenges related to limited academic staffing, insufficient research infrastructure, and variations in the provision of methodological support to postgraduate students (Mgaiwa, 2018; TCU, 2020). To strengthen research capacity, universities commonly incorporate research methodology courses into postgraduate curricula, particularly within coursework-based programmes. However, the nature, intensity, and timing of methodological training differ considerably across institutions and programme structures, with students enrolled in thesis-only programmes often relying more heavily on supervisory guidance and self-directed learning (TCU, 2023). Regardless of programme type, the successful completion of a thesis or dissertation remains a mandatory requirement for the award of postgraduate degrees, reflecting the central role of research competence

within postgraduate education (Paltridge & Starfield, 2020). Given these expectations, understanding how postgraduate students acquire and utilise knowledge of research paradigms and approaches is essential for improving the quality of research training and strengthening postgraduate education in Tanzania.

Statement of the Problem

Despite the growth in postgraduate programmes and universities' efforts to provide research training and supervision, studies have documented challenges among postgraduate students in understanding and applying appropriate research paradigms and approaches in conducting scholarly inquiry (Khatri, 2020; Khumalo & Dongwe, 2025; Mashau & Fhatuwani, 2023; Nwosu et al., 2024; Wu et al., 2024). However, little is known about the extent to which postgraduate students utilise various educational research paradigms and approaches in their theses and dissertations, particularly within the Tanzanian context. Examining these patterns is important for informing curriculum improvement and strengthening research capacity development initiatives in higher education institutions. To bridge this gap, it was imperative to examine their utilisation to inform institutional policy for improved postgraduate curriculum design, specialised training, supervision and mentoring programmes, and accessibility to resources.

Research Objective

The main objective of this study is to examine the utilisation of educational research paradigms and approaches among postgraduate students in their theses and dissertations and explore the implications of these utilisation patterns for postgraduate research training and supervision.

Specific Research Objectives

The specific research objectives are to:

1. Identify the types of educational research paradigms and approaches utilised by postgraduate students in their theses and dissertations;
2. Determine the extent to which postgraduate students utilise educational research paradigms and approaches in their theses and dissertations;
3. Establish the proportion of postgraduate theses and dissertations that do not explicitly indicate the research paradigms and approaches guiding the studies.

Main Research Question

How do postgraduate students utilise educational research paradigms and approaches in their theses and dissertations?

Specific Research Questions

The specific research questions are:

1. Which educational research paradigms and approaches are most and least frequently utilised by postgraduate students in their theses and dissertations?
2. To what extent do postgraduate students utilise educational research paradigms and approaches in their theses and dissertations?
3. To what extent do postgraduate students fail to explicitly indicate the research paradigms and approaches underpinning their studies?
4. What implications do the observed patterns of paradigm and research approach utilisation have for postgraduate research training and supervision in higher education institutions?

Significance of the Study

This study is significant because it provides empirical evidence on how postgraduate students apply research paradigms and methodological approaches in theses and dissertations, thereby shifting attention from general discussions of postgraduate research challenges to actual methodological practices. Its findings can inform the improvement of research methodology curricula by identifying areas in which students experience difficulties in understanding and applying methodological principles. The study also offers evidence that may assist supervisors and academic mentors in strengthening methodological guidance and support, while providing quality assurance units and university administrators with insights for enhancing methodological rigour, coherence and transparency in postgraduate research. More broadly, the findings may inform institutional and policy strategies for strengthening research capacity, promoting appropriate methodological diversity and improving postgraduate research training in higher education.

Literature Review

Conceptualisation and Significance of Research Paradigms and Research Approaches

Research paradigms occupy a central position in scholarly inquiry because they provide philosophical assumptions that shape how researchers understand reality, generate knowledge, and justify methodological choices (Paul, 2005; Phillips & Burbules, 2000). Kuhn (1970) popularised the concept of paradigm as a shared system of beliefs, values, assumptions, and practices guiding scientific inquiry. Guba and Lincoln (1994) further conceptualised paradigms as interconnected ontological, epistemological, and methodological assumptions influencing the research process. Similarly,

Khatri (2020) and Keong et al. (2021) regard paradigms as intellectual frameworks that determine what constitutes legitimate knowledge, how knowledge can be acquired, and how its credibility should be assessed.

Several paradigmatic traditions are relevant to educational research. Positivism assumes an objective reality that can be systematically observed and empirically measured (Paul, 2005; Phillips & Burbules, 2000; Sapkota, 2024). Interpretivism and constructivism emphasise socially constructed realities and focus on human meanings, experiences, and interactions within particular contexts (William, 2024; da Silva, 2025). Critical theory examines power relations and seeks social transformation (Kincheloe & McLaren, 2002; Strunk & Betties, 2019; Misiaszek et al., 2022), while poststructuralism challenges universal truths by examining the relationships among discourse, language, and power (Howarth & Griggs, 2015; Mason & Clarke, 2022; Niesche, 2020). Pragmatism, meanwhile, prioritises practical problem-solving and methodological flexibility, often supporting the integration of qualitative and quantitative approaches (Tashakkori et al., 2021).

The significance of paradigms lies in promoting coherence between assumptions about reality, knowledge, and methodological procedures. Paradigmatic awareness enables researchers to justify methodological decisions, maintain consistency, and strengthen methodological rigour (Creswell & Creswell, 2022; Kivunja & Kuyini, 2017; Lincoln et al., 2023). Paradigms also provide foundations for assessing the trustworthiness, validity, and credibility of research findings (Bridges, 2017; Greene, 1994).

Nevertheless, the necessity of explicit paradigmatic positioning remains debated. Pragmatist scholars argue that research should primarily respond to the nature of the research problem rather than rigid philosophical traditions, since excessive paradigm allegiance may constrain methodological innovation and reinforce divisions between qualitative and quantitative research (Tashakkori et al., 2021). Siegel (2012) similarly suggests that meaningful research can be produced without extensive philosophical engagement. The growth of mixed methods has further challenged rigid paradigm boundaries by promoting methodological pluralism and integration of diverse forms of evidence (Tashakkori et al., 2021; Munoz-Najar et al., 2020).

Despite these developments, abandoning paradigms completely may produce conceptual confusion and methodological inconsistency. Guba and Lincoln (1994), Lincoln et al. (2023), and Sławecki (2018) maintain that paradigms clarify the assumptions underlying methodological choices and promote coherence among research questions, methods, and

interpretations. Makombe (2017) similarly emphasises the importance of distinguishing paradigms, methodologies, and research designs.

This debate is particularly important in postgraduate education, where students are expected to demonstrate both methodological competence and understanding of philosophical foundations. However, students frequently experience confusion regarding paradigms, epistemology, methodology, methods, and research designs (Mkansi & Acheampong, 2012; Kivunja & Kuyini, 2017). Examining their utilisation of paradigms therefore provides insight into both philosophical understanding and methodological justification.

Research approaches represent broader strategies for generating and analysing evidence. Quantitative research, commonly associated with positivist and post-positivist traditions, uses numerical data and statistical procedures to examine relationships and test hypotheses (Cohen et al., 2018; Cooksey, 2020). Qualitative research focuses on meanings, experiences, and social processes within natural contexts (Isik, 2025; da Silva, 2025), while mixed methods integrates qualitative and quantitative procedures to provide more comprehensive understandings of complex phenomena (Tashakkori et al., 2021). However, these relationships should not be treated as rigid one-to-one associations; methodological choices should reflect research problems while maintaining philosophical coherence (Makombe, 2017; Fuyane, 2021; Khaldi, 2017).

Teaching and Learning of Educational Research Methods in Postgraduate Programmes

Research methodology training is a fundamental component of postgraduate education because it equips students with the knowledge and skills needed to design, conduct, and evaluate scholarly inquiry (Cohen et al., 2018; Creswell & Creswell, 2022). Beyond technical competence, it should develop understanding of the philosophical assumptions underlying research, including epistemological, ontological, and axiological positions, enabling students to justify methodological choices and demonstrate awareness of the foundations of inquiry (Bridges, 2017; Greene, 1994; Abdulai & Owusu-Ansah, 2014; Hamond, 2023).

However, teaching and learning research methods remain challenging. Studies indicate that postgraduate courses are often characterised by lecturer-centred pedagogies, extensive content coverage, and limited opportunities for critical engagement (Coronel Llamas & Boza, 2011; Earley, 2014; Lewthwaite & Nind, 2016). Heavy reliance on lecture-based knowledge transmission may restrict deep conceptual learning (Fulford & Mahon, 2020;

Loughlin & Lindberg-Sand, 2023; Trigwell & Prosser, 2020), encouraging procedural competence while giving inadequate attention to philosophical foundations (Mkansi & Acheampong, 2012). Consequently, students may acquire methodological techniques without fully understanding the assumptions guiding their application (Daniel et al., 2018; Daniel, 2022).

These difficulties are particularly evident in learning research paradigms. Concepts such as ontology, epistemology, axiology, and methodology are often regarded as abstract, while students may struggle to distinguish paradigms, methodologies, methods, and research designs (Keong et al., 2021; Khatri, 2020; Kivunja & Kuyini, 2017; Makombe, 2017; Daniel et al., 2018). Such confusion can contribute to methodological inconsistencies in postgraduate research, potentially undermining research quality and coherence (Kairembo, 2018; Hamond, 2023).

From a social constructivist perspective, complex methodological knowledge is better developed through active engagement, dialogue, collaboration, and interaction with authentic research problems (Vygotsky, 1978; Akpan et al., 2020; Bandura, 1977; Thompson & Spenceley, 2020). Accordingly, critical reflection, methodological debate, peer learning, and engagement with real research examples can deepen both philosophical and practical understanding (Lewthwaite & Nind, 2016; Matos et al., 2023; Shawa, 2020; Lebert & Vilarroya, 2024).

Despite growing evidence on methodological learning, empirical research on postgraduate students' paradigmatic understanding remains limited, particularly in African higher education (Ssenyonga & Nakiganda, 2020; Nwosu et al., 2024). In Tanzania, concerns persist regarding students' understanding of paradigmatic foundations and methodological application in dissertations (TCU, 2023; Kairembo, 2018). Examining how postgraduate students understand and apply research paradigms and approaches is therefore important for strengthening research capacity and improving postgraduate education quality (Mgaiwa, 2018; MoEST, 2023).

Postgraduate Students' Utilisation of Research Paradigms and Approaches

The utilisation of research paradigms and methodological approaches among postgraduate students has received increasing scholarly attention because it provides an important indication of the effectiveness of postgraduate research training in preparing students for independent scholarly inquiry (Erwee et al., 2018; Nwosu et al., 2024). Ideally, postgraduate research should demonstrate coherence between philosophical assumptions, research questions, methodological approaches, research designs and

analytical procedures (Creswell & Creswell, 2022; Cohen et al., 2018). However, evidence indicates that novice researchers frequently experience difficulties in establishing such methodological coherence.

Students' methodological choices are influenced by interacting individual, institutional, disciplinary and contextual factors. These include prior educational and research experiences, disciplinary traditions, supervisors' methodological orientations, institutional expectations, and access to methodological resources and research support (Daniel et al., 2018; Kivunja & Kuyini, 2017; Ssenyonga & Nakiganda, 2020; Mashau & Fhatuwani, 2023; Nwosu et al., 2024). Supervision is particularly influential because supervisors guide students in selecting paradigms, designs, data collection methods and analytical procedures (Kaur et al., 2021; Wu et al., 2024). Consequently, students may adopt methodological orientations reflecting dominant practices within their supervisory and disciplinary environments (Mohamed et al., 2017). Although such guidance can strengthen methodological rigour, excessive dependence on supervisors may constrain students' critical engagement with alternative paradigms and the development of independent methodological reasoning (Lewthwaite & Nind, 2016; Makombe, 2017).

A persistent concern in the literature is students' difficulty distinguishing research paradigms, methodologies, methods and designs, together with weak articulation of the ontological and epistemological assumptions underlying their methodological choices (Mkansi & Acheampong, 2012; Khatri, 2020). These difficulties may produce inconsistencies between research questions, philosophical positions, methodological frameworks and analytical procedures (Kivunja & Kuyini, 2017; Hamond, 2023). Consequently, some students may treat paradigms as formal requirements of thesis writing rather than as foundational frameworks that shape the logic and conduct of inquiry (Bridges, 2017; Greene, 1994).

The role of paradigms in research remains contested. While some scholars emphasise explicit paradigmatic positioning to establish philosophical and methodological coherence (Guba & Lincoln, 1994; Lincoln et al., 2023), others advocate flexible, problem-centred approaches that give greater priority to research questions than rigid paradigmatic boundaries (Fuyane, 2021; Khaldi, 2017). Such differences in methodological discourse may create uncertainty for postgraduate students, particularly where supervisors and academic texts promote competing expectations.

The literature further suggests that meaningful understanding of paradigms requires active, social and reflective learning rather than memorisation of

abstract philosophical concepts (Bandura, 1977; Vygotsky, 1978; Akpan et al., 2020). Lecture-dominated and theoretically dense methodology instruction may consequently limit students' ability to translate paradigmatic knowledge into research practice (Fulford & Mahon, 2020; Loughlin & Lindberg-Sand, 2023). In Tanzania, empirical evidence remains limited, although available studies point to inadequate integration of philosophical debates into methodology training and insufficient opportunities for applied methodological reasoning (Kairembo, 2018; TCU, 2023). Institutional pressures surrounding thesis completion may further encourage procedural compliance rather than critical methodological engagement (Mgaiwa, 2018; MoEST, 2023).

This gap warrants systematic examination of completed theses and dissertations because these documents provide direct evidence of how postgraduate students translate methodological knowledge into actual research practice. Analysing the paradigms and approaches represented in postgraduate research can illuminate the effectiveness of methodology training, the influence of supervision, and the extent of methodological coherence, while providing evidence for strengthening postgraduate curricula, supervision and institutional research capacity (Daniel, 2022; Kivunja & Kuyini, 2017; Munoz-Najar et al., 2020).

Theoretical Framework

This study integrates Social Learning Theory and Constructivist Learning Theory to explain postgraduate students' utilisation of educational research paradigms and approaches. Social Learning Theory proposes that learning occurs through observation, modelling and imitation, while behaviour is shaped by the interaction between cognitive processes and environmental conditions (Bandura, 1977; Shawa, 2020). The theory is relevant to postgraduate research education because students acquire methodological knowledge not only through formal instruction but also by observing lecturers, supervisors, peers and established research practices. Through these interactions, students may learn how research problems are framed, paradigms are selected and justified, and methodological approaches are applied in theses and dissertations.

Observational learning involves four interconnected processes: attention, retention, reproduction and motivation (Lebert & Vilarroya, 2024; Lin et al., 2025). Postgraduate students must attend to methodological practices, retain relevant knowledge, reproduce it in their own research, and remain motivated to apply it appropriately. Social Learning Theory therefore helps explain how academic environments, supervision and exposure to methodological models influence students' utilisation of research

paradigms and approaches. However, the theory has been criticised for placing considerable emphasis on environmental influences and modelling while providing limited attention to individual responsibility, information processing and learning behaviours that develop without identifiable models (Rumjaun & Narod, 2025). Constructivist Learning Theory is consequently used to complement this perspective.

Constructivist Learning Theory, rooted in the work of Piaget, Vygotsky and Dewey, conceptualises learning as an active process through which learners construct knowledge based on previous experiences and interaction with their environments (Fosnot & Perry, 2013). Its first principle, knowledge construction, suggests that postgraduate students develop methodological understanding by connecting new concepts with prior learning and research experiences (Thompson & Spenceley, 2020). Knowledge is also subjective and context-dependent because students' interpretations are shaped by their sociocultural backgrounds, interests, beliefs and experiences (Aubrey & Riley, 2021).

The theory further emphasises active learning, whereby knowledge is developed through thinking, discussion, investigation and problem-solving. Such activities enable postgraduate students to critically engage with research paradigms and methodological approaches rather than merely memorising methodological concepts (Aubrey & Riley, 2021; Thompson & Spenceley, 2020). Social and collaborative learning is equally important, as interaction with lecturers, supervisors and peers supports the development of knowledge and methodological competence (Vygotsky, 1978). Finally, contextual learning recognises that students' knowledge and practices are influenced by institutional, social, cultural, technological and academic environments.

Together, Social Learning Theory and Constructivist Learning Theory provide a complementary framework for understanding postgraduate students' utilisation of research paradigms and approaches. Social Learning Theory explains how methodological knowledge is acquired through observation and modelling, whereas Constructivist Learning Theory explains how students actively construct, interpret and apply this knowledge within particular social and institutional contexts. The integrated framework therefore highlights the importance of supervision, peer interaction, active engagement, prior experience and contextual conditions in shaping postgraduate students' methodological understanding and practice.

Methodology

This study employed a documentary research design to examine postgraduate students' utilisation of research paradigms and methodological approaches in theses and dissertations. The methodology comprised the study context, research design, population and data sources, data production and analysis procedures, measures for ensuring analytical trustworthiness, and ethical considerations.

Study Context

The study was conducted in a selected academic unit at a public university in Tanzania, referred to as *University Y* to preserve institutional anonymity. The university is among the country's long-established higher education institutions with a substantial history of postgraduate education and research in education-related disciplines (University Y, 2014, 2022). The selected academic unit provided an appropriate setting because it has enrolled considerable numbers of master's and doctoral students and produced a large body of postgraduate research outputs over several decades. This context provided a valuable opportunity to examine patterns in the use of research paradigms and methodological approaches in completed theses and dissertations.

Research Design and Data Sources

A documentary research design, supported by descriptive content analysis, was adopted to systematically examine completed postgraduate theses and dissertations (Tight, 2019). Documentary research is appropriate for investigating existing textual and institutional records that were originally produced for purposes other than the immediate research but can provide important evidence concerning academic and social practices (Cohen et al., 2018). The design was particularly suitable because the study focused on methodological practices as demonstrated in completed research outputs rather than students' self-reported understandings or perceptions.

The study analysed the entire accessible population of 1,278 postgraduate research reports submitted to the selected academic unit between 1985 and 2023. These comprised 1,222 master's dissertations and 56 doctoral theses. The inclusion of the entire accessible population enabled the study to provide a comprehensive account of methodological practices within the selected institutional context and eliminated sampling error associated with selecting only a subset of the available documents (Cantwell, 2008). Including both master's and doctoral studies also enabled comparison of methodological patterns across postgraduate levels.

Data Production and Analysis

Data were produced through a structured document review conducted over five months during the 2022/2023 academic year. A document extraction guide was developed to ensure systematic and consistent capture of methodological information from each thesis and dissertation. The review focused primarily on methodological sections and extracted information relating to philosophical orientation, research paradigms, methodological approaches, research designs and, where available, the justification provided for methodological choices.

The extracted information was classified using predetermined categories derived from methodological literature. Research paradigms included positivism, interpretivism, critical theory and pragmatism, while methodological approaches were classified as qualitative, quantitative or mixed methods. Descriptive content analysis was used to identify, organise and quantify these methodological characteristics across the large corpus of postgraduate research documents. Content analysis provides a systematic and replicable procedure for reducing textual information into analytically meaningful categories through explicit coding procedures (Krippendorff, 2018; Neuendorf, 2017).

The analysis proceeded through document screening, coding, classification and statistical summarisation. Relevant methodological information was first identified and extracted from each document. The extracted data were subsequently coded using predefined abbreviations, including positivism (POS), interpretivism (INT), critical theory (CRT), pragmatism (PRG), qualitative (QLT), quantitative (QNT) and mixed methods research (MMR). The coded data were entered into a database and analysed using descriptive statistics. Frequencies and percentages were calculated to establish the prevalence and distribution of different research paradigms and approaches across master's and doctoral studies.

The integration of systematic content analysis with descriptive statistical procedures enabled the study to identify dominant and underrepresented methodological traditions and to compare patterns across the two postgraduate levels (Krippendorff, 2018; Neuendorf, 2017; Cooksey, 2020). This approach was particularly appropriate for examining a large corpus of documentary evidence because it combined close examination of textual methodological information with quantitative summarisation of patterns across the population of studies.

Trustworthiness and Ethical Considerations

Analytical trustworthiness was enhanced through the development of explicit operational definitions and predetermined coding criteria for each research paradigm and methodological approach. The structured extraction guide and coding framework were used consistently throughout the review to minimise ambiguity and subjective interpretation. Explicit coding procedures also enhanced transparency and the potential replicability of the analysis, consistent with established principles of content analysis (Cohen et al., 2018; Neuendorf, 2017; Krippendorff, 2018).

Ethical clearance and institutional permission to access the theses and dissertations were obtained from the relevant university authorities before data collection. Institutional anonymity was maintained by referring to the university as University Y and withholding identifying information about the academic unit and individual postgraduate students. The extracted information was used exclusively for research purposes and managed confidentially. No personal identifiers of students were reported, thereby ensuring that the analysis focused on aggregate methodological patterns rather than the performance or identity of individual researchers.

Study Findings

The study findings are presented according to the research questions. The analysis focused on postgraduate theses and dissertations produced at University Y between 1985 and 2023, examining the extent to which students specified and utilised different research paradigms and educational research approaches.

Postgraduate Students' Utilisation of Research Paradigms

This section presents findings on postgraduate students' utilisation of research paradigms in theses and dissertations between 1985 and 2023. The documents were examined to identify and record the paradigms specified by master's and doctoral students. The findings reveal substantial differences in paradigm utilisation between the two postgraduate levels as presented in Table 1.

Non-Utilisation of Research Paradigms

A substantial proportion of postgraduate students did not specify a research paradigm in their research reports. Among doctoral students, 8.9% did not identify a research paradigm, compared with 80.9% of master's students. Overall, 77.7% of all postgraduate theses and dissertations did not clearly specify the research paradigm guiding the study. Thus, the majority of research reports, particularly at master's level, did not explicitly identify a philosophical research orientation.

Table 1 Frequency Distribution of Postgraduate Students' Utilisation of Research Paradigms at University Y between 1985 and 2023

No	Research Paradigm Utilised	Doctoral		Master		Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	No Paradigm Indicated	5	8.9	988	80.9	993	77.7
2	Pragmatism	18	32.1	65	5.3	83	6.5
3	Interpretivism	22	39.3	42	3.4	64	5.0
4	Positivism	1	1.8	45	3.7	46	3.6
5	Post-positivism	2	3.6	42	3.4	44	3.4
6	Constructivism	1	1.8	36	2.9	37	2.9
7	Social Constructionism	2	3.6	4	0.4	6	0.5
8	Critical Theory	3	5.4	0	0	3	0.2
9	Realism	1	1.8	0	0	1	0.1
10	Transformative Worldview	1	1.8	0	0	1	0.1
11	Poststructuralism	0	0	0	0	0	0
	Total	56	100	1,222	100	1,278	100

Source: Field data (2023)

Utilisation of Pragmatism

Pragmatism was utilised by 32.1% of doctoral students and 5.3% of master's students. Overall, pragmatism accounted for 6.5% of all postgraduate research reports. The findings therefore show substantially greater utilisation of pragmatism among doctoral students than among master's students.

Utilisation of Interpretivism Paradigm

Interpretivism was utilised by 39.3% of doctoral students and 3.4% of master's students. Across all postgraduate research reports, the overall utilisation rate was 5.0%. Interpretivism was therefore more frequently identified among doctoral research than master's research.

Utilisation of Positivism Paradigm

Positivism was identified in 3.7% of master's research reports and 1.8% of doctoral research reports. The overall utilisation rate was 3.6% of

postgraduate research. The findings indicate relatively limited utilisation of positivism at both postgraduate levels.

Utilisation of Post-positivism

Post-positivism was utilised by 3.6% of doctoral students and 3.4% of master's students, resulting in an overall utilisation rate of 3.4%. The findings show relatively similar levels of post-positivist paradigm utilisation between doctoral and master's research.

Utilisation of Constructivism Paradigm

Constructivism was utilised by 2.9% of master's students and 1.8% of doctoral students, with an overall utilisation rate of 2.9%. Its utilisation was therefore relatively low across both categories of postgraduate research.

Utilisation of Social Constructionism Paradigm

Social constructionism was identified in 3.6% of doctoral research reports and 0.4% of master's research reports. Overall, it accounted for only 0.5% of all postgraduate research reports. The findings demonstrate considerably greater utilisation at doctoral level.

Utilisation of Critical Theory

Critical theory was utilised by 5.4% of doctoral students, while none of the master's students identified critical theory as their research paradigm. Overall, critical theory accounted for 0.2% of all postgraduate research reports.

Utilisation of Realism and Transformative Worldview

Realism and the Transformative Worldview were each utilised by 1.8% of doctoral students and were not identified among master's students. Each paradigm accounted for 0.1% of all postgraduate research reports.

Utilisation of Poststructuralism

The analysis found no utilisation of poststructuralism among either doctoral or master's students during the period from 1985 to 2023. Thus, none of the reviewed research reports identified poststructuralism as the guiding research paradigm.

Therefore, the findings show that 77.7% of postgraduate research reports did not specify a research paradigm. Among the reports that did identify paradigms, doctoral students demonstrated greater utilisation

of several paradigms, particularly interpretivism (39.3%), pragmatism (32.1%), and critical theory (5.4%). Among master's students, utilisation was considerably lower across most paradigms, with positivism (3.7%), pragmatism (5.3%), interpretivism (3.4%), post-positivism (3.4%), and constructivism (2.9%) representing the comparatively more frequently identified paradigms. Poststructuralism was completely absent from both doctoral and master's research.

Postgraduate Students' Utilisation of Educational Research Approaches

This section presents findings on the utilisation of educational research approaches among postgraduate students at University Y between 1985 and 2023. The analysis identified qualitative, mixed-methods, quantitative, and unspecified research approaches as presented in Table 2.

Table 2 Frequency Distribution of Postgraduate Students' Utilisation of Research Approaches

No	Research Approach Utilised	Doctoral		Master		Total	
		<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
1	Qualitative	33	59	614	50	647	50.6
2	Mixed Methods	19	34	490	40	509	39.8
3	Quantitative	4	7	84	7	88	6.9
4	Approach not Indicated	0	0	34	3	34	2.7
	Total	56	100	1,222	100	1,278	100

Source: Field data

Predominance of Utilisation of Qualitative Research

Qualitative research was the most frequently utilised approach, accounting for 50.6% of all postgraduate research reports. It was utilised by 59% of doctoral students and 50% of master's students. The findings therefore indicate that qualitative research constituted the dominant research approach across both postgraduate levels.

Significant Utilisation of Mixed Research

Mixed methods constituted the second most frequently utilised research approach, accounting for 39.8% of all postgraduate research reports. Mixed methods were utilised by 34% of doctoral students and 40% of master's

students. The findings indicate relatively high utilisation of mixed methods at both levels, with a slightly higher proportion among master's students.

Limited Utilisation of Quantitative Research

Quantitative research accounted for only 7% of all postgraduate research reports. The proportion was identical for master's and doctoral students, with 7% of students at each level utilising quantitative research. Thus, quantitative research represented a substantially smaller proportion of postgraduate research compared with qualitative and mixed-methods approaches.

Lack of Utilisation of Research Approach

The findings further indicate that 3% of master's students did not specify the research approach used in their theses or dissertations. This category was recorded separately from the identified qualitative, quantitative, and mixed-methods approaches.

Generally, the findings demonstrate a clear pattern in the utilisation of educational research approaches at University Y. Qualitative research was the dominant approach (50.6%), followed by mixed methods (39.8%), while quantitative research accounted for only 7% of postgraduate research. Qualitative research was particularly prominent among doctoral students, at 59%, while mixed methods were slightly more common among master's students, at 40% compared with 34% among doctoral students. Quantitative research was equally represented at both levels, at 7%. In addition, 3% of master's students did not specify their research approach.

Taken together, the findings indicate that postgraduate research at University Y during the period under review was characterised by limited explicit specification of research paradigms and a strong preference for qualitative and mixed-methods approaches. The most pronounced finding concerning paradigms was the high proportion of research reports that did not specify a paradigm, while the most pronounced finding concerning research approaches was the predominance of qualitative research.

Discussion of the Findings

The findings show that postgraduate students at University Y predominantly employed interpretive and pragmatic paradigms, together with qualitative and mixed-methods approaches, while positivist and quantitative approaches were comparatively less utilised. This pattern reflects the broader movement in educational research towards context-sensitive and methodologically pluralistic inquiry following traditional paradigm debates (Kivunja & Kuyini, 2017; Lincoln et al., 2023; Fuyane, 2021). The prominence of interpretive and

pragmatic approaches may therefore indicate increasing recognition that educational phenomena are complex, socially situated, and not adequately understood through a single methodological tradition.

However, this pattern should not automatically be interpreted as evidence of methodological advancement. The relatively limited use of quantitative approaches may indicate unequal exposure to methodological traditions, differences in students' methodological competence, or institutional and supervisory preferences. Students may consequently adopt approaches because they are familiar or perceived as manageable rather than because they are epistemologically and methodologically appropriate to their research questions. Methodological preferences may therefore reflect institutional practices as much as individual intellectual choices.

Social Learning Theory provides an important explanation for this pattern. Students acquire research knowledge and methodological orientations through observation, modelling, and interaction with supervisors, lecturers, peers, and existing research outputs (Bandura, 1977). If particular approaches dominate an academic environment, students may reproduce those approaches because they are the approaches most frequently demonstrated and reinforced. Similarly, constructivist learning theory emphasises that complex methodological knowledge develops through guided participation, interaction, and scaffolding (Vygotsky, 1978). Limited opportunities for practical engagement with quantitative analysis or unfamiliar paradigmatic traditions may therefore reduce students' confidence and willingness to adopt them.

The findings also suggest that postgraduate curricula and supervision may contribute to methodological concentration. Research-methods courses operating within compressed academic periods may prioritise procedural coverage over sustained engagement with epistemological and philosophical questions. Supervisors may also guide students towards approaches with which they are most familiar, thereby facilitating completion while potentially narrowing methodological experimentation (Mkansi & Acheampong, 2020). Methodological diversity therefore depends not only on curriculum content but also on the breadth of expertise available within postgraduate research environments.

A further concern is the limited representation of critical and transformative paradigms. Although interpretive and pragmatic approaches can provide valuable understanding of educational experiences and problems, limited engagement with critical perspectives may reduce opportunities to examine power, inequality, exclusion, and structural conditions shaping educational

outcomes (Strunk & Betties, 2019). This is particularly important in educational contexts characterised by persistent inequalities, where research needs not only to understand educational realities but also to question the structures and practices that produce them. The societal contribution of educational research therefore depends on both methodological rigour and its capacity to interrogate the conditions underlying educational experiences (Felder & Garz, 2025).

Generally, the findings suggest that the central issue is not the dominance of one paradigm but the need for genuine methodological pluralism. Methodological pluralism requires students to understand different philosophical positions, critically evaluate their assumptions, and select approaches according to the research problem rather than familiarity, convenience, or institutional convention. Strengthening methodological training, expanding supervisory expertise, increasing practical exposure to diverse approaches, and creating opportunities for critical methodological dialogue could therefore improve the coherence, diversity, and societal relevance of postgraduate research.

Implications for Policy and Practice

The findings have several implications for postgraduate education policy and practice. First, universities should periodically review postgraduate research-methodology curricula to ensure that students receive balanced exposure to qualitative, quantitative, mixed-methods, and diverse paradigmatic traditions. Methodology courses should move beyond teaching research procedures to developing students' capacity to understand, compare, justify, and critically evaluate methodological choices.

Second, universities should strengthen supervisory capacity across methodological traditions. The concentration of students' research within particular paradigms may partly reflect the methodological expertise available within their academic environments. Institutions should therefore provide continuous professional development for supervisors and encourage collaborative supervision where complementary methodological expertise is required. This would expand the methodological options available to students and reduce excessive dependence on individual supervisors' methodological preferences.

Third, postgraduate programmes should provide additional practical support for quantitative research and data analysis. The relatively limited use of quantitative approaches suggests the need for research clinics, statistical workshops, practical data-analysis sessions, peer-learning groups, and individual methodological consultations. Such support should complement

formal coursework and enable students to progressively develop confidence and competence in quantitative inquiry.

Fourth, postgraduate education should provide greater opportunities for critical and transformative research traditions. Seminars, reading groups, methodology workshops, and supervision discussions should expose students to approaches that examine power, inequality, exclusion, social justice, and institutional structures. This would broaden the intellectual purposes of postgraduate research beyond describing educational problems towards critically examining their causes and possible transformation.

Fifth, universities should establish periodic reviews of postgraduate theses and dissertations to monitor methodological trends. Such reviews can identify patterns of methodological concentration, emerging areas of research, gaps in students' methodological preparation, and areas requiring curriculum or staff-development interventions. The findings of these reviews could inform programme review, supervisor development, and postgraduate research-support strategies.

Generally, the study implies that improving postgraduate research quality requires an institutional environment that promotes epistemological openness, methodological competence, supervisory diversity, and critical reflexivity. The objective should not be to increase the use of any particular paradigm or approach, but to ensure that students possess sufficient methodological knowledge and confidence to make informed choices appropriate to their research problems.

Conclusions and Recommendations

This study investigates the use of educational research paradigms among postgraduate students at University Y. By analysing thesis and dissertation samples from 1985 to 2023, the research found a higher frequency of interpretivism and pragmatism use, with less emphasis on positivism. Despite greater application of qualitative and mixed methods, students showed limited engagement with paradigms like social constructionism, critical theory, and poststructuralism. The study implies that postgraduate programmes at University Y insufficiently emphasise educational research paradigms, impacting the quality and contribution of research. The limited use of quantitative research methods is attributed to inadequate mathematical and statistical knowledge.

To improve the diversity and quality of research at University Y, the study recommends the following. First, promoting methodological diversity by encouraging balanced knowledge of different paradigms and approaches.

Second, enhancing quantitative, critical and transformative paradigms knowledge and skills by integrating them into short and long-term research training (workshops and seminars), curriculum development, and supervisory practices. Third, facilitating access to resources to improve students' knowledge of quantitative educational research. Fourth, promoting interdisciplinary collaborations in teaching and research to enable learning from various backgrounds. Fifth, strengthening supervision and mentorship to build student confidence in quantitative and contemporary paradigms. Sixth, faculty members to play a more active role in guiding postgraduate students toward research that not only contributes to academic knowledge but also challenges systemic inequities and advances social transformation. Further studies are recommended to qualitatively explore students' and supervisors' attitudes and experiences related to research methodologies.

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