Academy Journal of Multidisciplinary Doctoral Research [AJMDR]
Volume 2, Issue 1, 2024 ISSN: 2992-4669 || eISSN: 1116-3321

Generic Research Methodology Programme as Imperative for Prospective PhD Research Development: Exploring Research Philosophy

Obiageli, Caroline[1,2*] and Auwalu, Musa[3]**

[1]Centre for Critical Thinking, Teaching and Learning, Kaduna
[2]Postgraduate Research Methodology Office, Nigerian Defence Academy, Kaduna
[3]Department of Political Science, Nigerian Defence Academy, Kaduna

Corresponding Author's Email:
coemekaogbonna@nda.edu.ng
Received: 15-02-24
Accepted: 12-05-24
Published: 26-08-24

Abstract

A doctorate of philosophy study is a requirement in every society to promote research and innovation through interdisciplinary and trans-disciplinary research. The philosophy of research serves as a critical cornerstone in guiding and shaping the prospective research processes towards this end. However, the curriculum of research methodology programmes for doctoral students, especially in the natural sciences, mostly leaves out the philosophical components of logic, critical thinking and consciousness of the social responsibility of research. This creates a developmental gap in doctoral training, producing scholars not competently nurtured as the big thinkers and creative problem-solvers society needs. This paper, therefore, explores the significance of philosophical underpinnings within a multidisciplinary platform and their implications for doctoral development and inquiry. The study is based on the unique Generic Research Methodology Programme (RSM) of the Postgraduate School in Nigerian Defence Academy Kaduna and supported by a broader textual analysis of some other doctoral research programmes that also sought to harness the role of liberal education in interdisciplinary doctoral development. At its core, the RSM foregrounds the intricate relationship between philosophical frameworks and the research journey but presents this within a carefully knitted package that adequately provides for the peculiarities and multidisciplinarity in research development. The RSM programme is therefore delivered in three blocks comprising two generic multidisciplinary study blocks and one peculiar disciplinary block. This paper focuses on the first generic block RSM 911, titled Research Philosophies. It seeks to illuminate how the ontological perspectives of reality guiding epistemological assumptions of inquiry inform theoretical perspectives and methodological approaches with their attendant ethical considerations for formulating and designing impactful research, which should be effectively communicated to non-professional members of society. Thus through a generic multidisciplinary engagement, the RSM 911 has been designed to address the problems of scholars' inability to apply philosophical knowledge in the conceptualization and design of doctoral research; theoretical knowledge in statistical tests in the laboratory or field studies; frequent mistakes in choosing appropriate sets of experiments and controls with attendant ethical considerations for impactful knowledge generation; and significant difficulty in explaining research findings to non-experts. By transcending disciplinary boundaries, the course harnesses the insights and methodologies of diverse philosophical traditions, enriching the depth and breadth of scholarly inquiry for a rigorous and robust research development for the prospective Doctor of Philosophy (PhD) research process.

Keywords: Research Methodology, Research Philosophy, Interdisciplinarity

*Dr Caroline Obiageli is Associate Professor of Critical Thinking and the pioneer coordinator of the Generic Research Methodology Programme of the Postgraduate School, Nigerian Defence Academy, Kaduna.

**Auwalu Musa is a doctoral candidate and beneficiary of the programme who lectures in the Department of Political Science, Nigerian Defence Academy, Kaduna.

1.0 Introduction

The pursuit of a doctoral degree represents a significant milestone in the academic journey, marked by rigorous research, scholarly inquiry, and intellectual exploration that signals a research career. The degree is anticipated to develop in the candidates the capacity to initiate research that would be relevant to the society, of high impact, contributing to civic/policy engagements, enhancing professional skills, as well as generating social, economic and cultural benefits and opportunities for all through enriching scholarly experiences. At the core of this desirable and enviable endeavour lies the philosophy of research—a foundational framework that underpins the entire research process. In the contemporary academic landscape, researchers are confronted with a myriad of theoretical perspectives, methodological choices, and ethical considerations. The philosophy of research provides a lens through which scholars can navigate these complexities, guiding their inquiries and shaping the outcomes of their research endeavours for optimal relevance, applicability and reproducibility.

However, the extensive disciplinary-focused doctoral programmes, especially in the natural sciences, that de-emphasize philosophy have been criticized as producing narrowly focused researchers who are professionals in their chosen fields rather than critical thinkers who can perceive the bigger picture of societal problems and develop the capacity to put their research into wider contexts for solving such problems (Bosch, 2018). Additionally, the growing trend in academics is the transdisciplinary integration of knowledge for addressing the complex problems of 21st-century society demands researchers' ability to not only work collaboratively with those of other disciplines but also to be able to communicate effectively with other professionals and practitioners for the applicability and reproducibility of their research outputs. The narrowed disciplinary research training programmes eventually produce research experts who graduate as holders of doctoral knowledge in their chosen field but, unfortunately, lack the philosophical competence to be doctors of philosophy, or simply put philosophers philosophic thinkers and knowledge creators, in those areas. These doctors also have no knowledge of research practices of other disciplines and as such, cannot access or contribute to other disciplinary fields of study.

In an effort to address these identified problems, in 2019 the Postgraduate School, (PGS) Nigerian Defence Academy (NDA) introduced a generic research development programme for all doctoral students in the institution. Currently, all doctoral candidates registered in the NDA PGS participate in and are expected to successfully complete a mandatory Research Methodology Programme organized in three semesters and cover RSM 911: Generic Research Philosophies, RSM 921: Disciplinary Research Practices and Methods, and RSM 931: Personal Research Portfolio Presentation. The programme aims to present research students with the generic descriptors common to researchers across academic disciplines in higher education while seeking to expand their knowledge and intellectual abilities towards effective conduct of disciplinary-based research as doctoral scholars. As a result, it sets out the knowledge and attributes necessary for the development of effective and highly skilled researchers, which are well suited for a wide range of multi- and trans-disciplinary careers. It seeks to enhance the capacity of the scholarly workforce, develop world-class researchers and build a strong research base for policy-makers and research organisations across the nation.

This paper explores the critical role of such a generic programme in shaping the prospective PhD research process by discussing the contents and processes of the research philosophies block, which is the only taught generic component of the programme. The RSM 931: Personal Research Portfolio Presentation is a students' self-driven block through which the candidates demonstrate the communication of a practical application of capacities developed in the programme to a multidisciplinary audience as a replica of an academic conference.

2.0 The Philosophy of RSM 911: Research Philosophies

The RSM 911: Research Philosophies is so named in plural form in recognition of its generic nature and engagement with philosophical foundations relevant to diverse research traditions. The course goes beyond a narrow focus on only the philosophy of research and critical thinking to incorporate other

key generic descriptors common to researchers across all academic disciplines, such as research ethics, literature review, communicating research and an introduction to transdisciplinary approaches in designing research. It is designed on the premise that research methodology is not an end in itself but a means to support and improve the quality of empirical research in substantive areas of studies. At the same time, it recognizes that the research workforce brings together varying disciplinary identities whose claims about social and physical phenomena are warranted on the basis of varied empirical evidences but are compelled to work collaboratively in the quest for sustainable growth and development. To this extent, the PGS NDA has had an outward-looking approach and actively sought to avoid the 'balkanisation' of research methodology across disciplines.

Most importantly, scholars, policy makers and development practitioners use a range of methods in producing evidence-based work, engaging discourses, advancing causes and promoting policies. This raises a growing need for the strengthening of an interdisciplinary approach in research careers across all domains of research and national development. Thus, there is the necessity to present research students with the generic descriptors common to researchers across academic disciplines in higher education while seeking to expand their knowledge and intellectual abilities towards effective conduct of disciplinary-based research as doctoral candidates. The RSM 911, therefore, aims to broadly develop students' independent research acuity through the essential philosophical knowledge, critical thinking, methodological, analytical and communicative skills necessary for a successful and productive dissertation process. It adopts an integrated approach for strategic researcher development framework which contributes to research training and development for all postgraduate research students, especially those for doctorate degrees. As well as the skills and training that are vital to the success of specific research projects, the programme presents a variety of other generic and transferable skills and training that will help postgraduate students become more rounded and effective researchers.

Since there is not a well-established pedagogical tradition for teaching research methods in an interdisciplinary context, the programme set out a delivery process that emphasizes Collaboration, Critical Thinking, Creativity, and Communication (C4) to develop research scholars with good philosophical and analytical skills for mutual linkage of ideas and profitable application of their knowledge and skills for the betterment of the society at large. Hence, as a driving framework, the programme relied on Integrative Learning Theory (ILT) which argues that integration, association, connectedness and interrelatedness are essential and will enhance thematic teaching, multi-disciplinary presentation of ideas, re-organization of students' participation and shared responsibility in the classroom, linkage of brain functions in the learning process, for the overall betterment of students (Clark, 2016). ILT focuses on shrinking the borders of disciplines, professions, and communities in other to have a holistic rather than a discrete view of reality and allow students to develop self-driven ideas in all areas of human disciplinary concerns. Rooted in other theories like Situated Cognition, Constructivism, Project-based Learning, and Multiple intelligences, its concern is on making: students the foci of education; assignments significant to the students and the world in which they live; creating multiple platforms and settings through which skill and experiences could be acquired, applied and practised; adopting different and conflicting perceptions; understanding issues and positions contextually; creating linkages within disciplines, fields, curriculum, knowledge areas or practices; and integrating traditionally separated subject areas for robust and better understanding (Macleod & Golby, 2003). Thus, a well-designed and implemented teaching and learning anchored on ILT enables students to learn more through participatory experiences rather than memorizing and retrieving facts. These will also expose them to tasks that use real-life situations and problem-solving skills while adding social consciousness to the process and preparing the students to be active and productive members of society more comprehensively than the traditional learning processes (Tar et al., 2023).

RSM 911, therefore specifically explores the principles, practices and processes of academic research commonly used in both natural and social sciences. In particular, it examines the philosophical/theoretical foundations of a range of methods and the epistemologies and ontologies for these methods. In other words, the paradigms

shaping these methods and the extent to which those paradigms are influencing and/or are influenced by practical considerations. Furthermore, students are exposed to a diverse range of paradigms and methodologies governing research so they can be evenly familiar with the theoretical and practical imperatives of these paradigms and methodologies irrespective of their disciplines. Hence, in this programme the emphasis is on (a) Critical discourse in knowledge generation, (b) philosophies behind research paradigms, (c) research environment and management, (d) designing and communicating research and (e) exploring new concepts, methods and tools of literature-based enquiry appropriate for doctoral study.

These key generic concepts and methodologies in academic research are delivered in six modules, with each module delivered over two weeks of three-hour sessions. The second weeks incorporate presentations of hands-on collaborative activities which support the students' interdisciplinary learning with other students through collaborative learning groups. This mirrors the real world of academic research where researchers often collaborate with colleagues in other universities/fields of learning and other countries across inter-, multi- and trans-disciplinary frameworks. As such, these collaborative activities form compulsory parts of these modules as broad research training necessary to become efficient researchers in the field.

Formative assessments of coursework are based on questions designed to generate critical thinking and creativity within the collaborative study groups towards overcoming intellectual tensions and contentions among the multidisciplinary group members. One of such questions entails conceptualization of a research problem/question within a specific sector of national development, for instance, education, defence, technology et.c. The group follows up with the articulation of relevant ontological and epistemological assumptions that would inform theoretical perspectives to guide suitable methodology for research that can generate effective answers/solutions to the identified research problem. The group activities in working through such assignments are to provide hands-on peer-supported learning opportunities through which the contents introduced by the facilitators in the classroom are consolidated with a multidisciplinary collaborative platform. It is also hoped that through such engagements the candidates would be able to arrive at generic solutions to their problems, which get communicated to the entire class in fortnightly seminar presentations. The presentations additionally drive enrichment and broadening of diversity in learning and students' participation, which equips each candidate with sufficient knowledge with which to evaluate philosophical and ethical components of a selected peer-reviewed published article in their area of doctoral study. This evaluation of published articles is also expected to be communicated to an identified non-professional or non-expert practitioner group.

After this presentation of the general philosophy and theory behind the RSM 911 content and delivery, the subsequent sessions will try to elaborate on the significance and relevance of some of the course's contents, especially those related to research philosophy and ethics of research, to an effective PhD development.

2.1 The Place of Philosophy in the Doctor of Philosophy (PhD)

Philosophy has been defined as "a view of the world encompassing the questions and mechanisms for finding answers that inform that view" (Mills & Birks, 2014, p. 18). With this emphasis on raising questions about reality at the core of philosophy, Baldwin (2014) argues that philosophy is the most basic level at which research methods should be conceptualized and that philosophy drives the interrogative processes that generate the research questions and inform the research processes. Thus, the philosophy of research, as explicated by Jansen & Rautenbach (2023) encapsulates the foundational principles and underlying assumptions that govern the research process.

Philosophical foundations comprise both ontological and epistemological components. Ontology refers to the nature of reality, an individual's existing assumptions about reality and how they view the world. It underpins how researchers view the world and the assumptions they make about the nature of the world and of reality. Epistemology is about the nature of knowledge and how an individual believes that knowledge is gained which also anchors the assumptions researchers make about the best way of investigating the world and reality/phenomenon (Creswell & Creswell, 2018; Crotty, 2009).

Together, ontology and epistemology describe what the researcher knows or claims to know and how they gain knowledge about that (Baldwin, 2014). The two tend to emerge together in the sense that one is closely embedded in the other. This is because the way we understand the process of knowing (epistemology) is closely linked to what is to be known (ontology).

Therefore, researchers' philosophy or the way they view the world will undoubtedly influence the way in which they conceptualize and proceed with a study. Thus, philosophy and research are inextricably linked in knowledge generation. As a lens through which we view the world, philosophy allows researchers to identify knowledge gaps upon which to base research and the methods with which the gaps are filled (Mills & Birks, 2014). Philosophical questioning informs the identification of research problems and the selection of research methods based on a suitable theoretical perspective/methodology through which the problems are solved. Philosophy is thus an essential part of establishing and ensuring that the researcher stays true to their chosen methodological framework.

2.2 Philosophical Foundations of Research Paradigms

The pillars of research, anchored on elements of philosophy, include Ontology, Epistemology, Methodology, Methods and Techniques, Axiology, and Rhetoric. These pillars delve into ontological considerations regarding the nature of reality, epistemological inquiries about the nature of knowledge, methodological approaches with related methods and techniques employed as a process of knowing, the ethical considerations for the process and conduct of research, and the practical considerations for interpretation and communication of the research findings. The key philosophical elements of these pillars are the 3-ologies of Ontology, Epistemology and Methodology. This philosophical framework profoundly influences every other aspect of the research endeavour, from the formulation of research questions to the selection of methodologies and the interpretation of findings.

The significance and implications of philosophical frameworks within the context of doctoral inquiry are profound and multifaceted, shaping the entire trajectory of research endeavours (Smith, 2018b). This is achieved through research paradigms. A paradigm refers to a cluster of beliefs and dictates that influence what should be studied, how research should be done, and how results should be interpreted. Each paradigm is based on specific assumptions about knowledge, about the world, and about how knowledge is obtained. Thus, the research paradigm has three key components: - assumptions about the nature of reality and knowledge (ontology and epistemology), theoretical frameworks derived from literature and research practice (theoretical Perspectives and methodology), and the value systems or ethical principles associated with the philosophical assumptions (Anxiology). Every research therefore, usually takes place within a recognized or unconsciously assumed research paradigm. Philosophical paradigms, including positivism, interpretivism, critical theory/constructivism, pragmatism, and post-colonialism serve as foundational frameworks that guide researchers in conceptualizing phenomena, formulating research questions, and selecting appropriate methodologies. The foundational philosophy behind each paradigm provides pre-structured perceptions, conceptualization and understanding with which the researcher who applies the paradigm interrogates reality or knowledge. This is why researchers from different disciplines (or research traditions) may have different paradigms. Thus, a paradigm is considered a shared worldview that represents the beliefs and values in a discipline and that guides how problems are solved. Using three main research paradigms, we will establish their roots from the three fundamental ontological and epistemological assumptions of reality and possibly identify academic disciplines that could be traditionally affiliated with such philosophical assumptions of reality.

2.3 The Scientific/Positivist/Postpositivist Research Paradigm

The scientific or positivist research paradigm represents the earliest and traditional philosophical perception of nature and research. This paradigm has as its ontological foundation the notion of realism which is a philosophical view of nature and the world/phenomenon as existing outside and independent of the human mind (Creswell & Creswell, 2018; Crotty, 2009). Elucidating this philosophical worldview, Crotty (2009) illustrates

that the tree in the forest exists as a tree regardless of anyone being aware of its existence or otherwise. Hence, as an independently existing object, the trees have an objective existence that carries the intrinsic meaning of 'tree-ness', such that when humans recognize it as a tree, they are not the ones ascribing the meaning to it rather they are simply discovering a meaning that has been lying there in wait for them all along.

The realist ontology is closely perceived to imply an epistemological assumption of objectivism. Objectivism, as an epistemological notion, asserts that meaning or truth claims exist in objects independent of any human consciousness, perception or values. Thus Crotty (2009, p. 18) posits that "if a 'real' reality is assumed, the posture of the knower must be one of objective detachment or value freedom in order to be able to discover 'how things really are' and 'how things really work'". On the basis of this philosophical foundation, the positivist, also known as the neo-positivist, research paradigm is concerned with objectivity, prediction, replicability and the discovery of scientific generalizations or laws describing the phenomena in question. The central feature of this research paradigm is the search for general laws for predicting future outcomes. It typically focuses on 'process-product' variables and seeks to correlate them with outcomes. It comprises methods employed mostly by physical scientists or such social scientists as Economists, Psychologists, and Political Scientists, et.c. with methodological approaches like surveys, experimental or quasi-experimental research et.c.

The positivist research paradigm emphasizes quantitative data, although qualitative data can also be used as and when appropriate. Within the positivist paradigm, researchers aim to establish causal relationships through empirical observation and experimentation (Smith, 2018b). For example, in a doctoral study examining the impact of exercise on cardiovascular health, researchers might employ survey research applying quantitative methods for physiological measurements to gather data on participants' exercise habits and health outcomes without any reference to the participants' subjective features or perceptions. By analyzing this data statistically, researchers can identify correlations and causal relationships between exercise frequency and cardiovascular health indicators. This demonstrates, therefore that the positivist researcher treats the researched as objects of observation and would ethically manage people and materials of their observation simply as research samples.

2.4 The Interpretative/Naturalist Research Paradigm

Conversely, interpretivism prioritizes understanding the subjective meanings individuals ascribe to their experiences or to the world. It is also known as 'naturalistic' research paradigm and is concerned with human understanding, interpretation, intersubjectivity, lived truth, or truth in human terms (Crotty, 2009). It is sometimes combined with constructivist worldview. At the core of this paradigm is the philosophical notion of the world and nature as idealistic which implies that "what is real is somehow confined to what is in the mind", which means it consists only of ideas in the minds of humans (Crotty, 2009, p. 76). This means there is no objective truth in nature waiting for humans to discover it, as postulated by the positivists. Rather, truth or meaning or realities, come into existence in and out of human minds' engagement with the realities in their world. Hence, there is no meaning without a mind as meaning is not discovered but constructed. Considering the earlier instance of the existence of a tree, to an idealist, the tree acquires its existence and intrinsic meaning of 'tree-ness' only when a human mind has perceived it and ascribes such meaning to it. This worldview, therefore, acknowledges that people can construct meaning or truth subjectively and in different ways from others, even in relation to the same phenomena. Thus it is the subject that imposes meaning on the object of inquiry (Crotty, 2009).

The epistemological position of subjectivism/interpretivism draws closely from the idealist ontology. The Interpretative paradigm supports that "something called subjectivity could be demonstrated in all research … One's own life history, belongingness to a specific research community, and everyday experience inform how one thinks and acts in relationship to the subject matter" (Bryman, 2008, p. 19). Subjectivism as an epistemological assumption promotes the understanding that "individuals develop subjective meanings of their experiences—meanings directed toward certain objects or things. These meanings are varied and multiple, leading the researcher to look for the complexity of views rather than narrowing meanings into a few categories or ideas" (Creswell

& Creswell, 2018, p. 48). Therefore, the goal of the interpretative research paradigm is to rely as much as possible on the participants' views of the situation of the phenomena being studied. For this reason, it emphasizes qualitative data though quantitative data can also be used as and when appropriate.

The interpretative research paradigm comprises research methods employed by social scientists or sociologists, including methodological approaches like hermeneutics, ethnography, and phenomenology. In a doctoral inquiry exploring the experiences of natural disaster survivors, researchers may conduct ethnography using qualitative interviews or participant observation and thematic analysis to uncover the diverse ways individuals interpret and make sense of their experiences. By capturing the rich narratives and perspectives of survivors, researchers can develop a nuanced understanding of the psychological and emotional impacts of natural disasters. This presupposes, therefore, that the interpretative researcher treats the researched as a subject in interaction and would ethically manage the people element of his research as respondents, whose personal values and responses are very vital to the success of the research.

2.5 Critical/Transformative/Constructivist Research Paradigm

Critical theory seeks to uncover and challenge power dynamics and social inequalities (Robert & Nguyen, 2020). Based strongly on critical theory, this paradigm resembles the interpretative paradigm, except that it is not concerned with just understanding a phenomenon from people's perspectives but also with social critique, social and institutional change, and possibly social justice, with participant engagement and validation (Bryman, 2008). This is why the paradigm is also known as the transformative paradigm by some scholars. It is anchored on the philosophical assumption that considers positivist assumptions as imposing structural laws and theories that do not recognize the marginalized individuals in our society, issues of power and social justice, or discrimination and oppression that need to be addressed. At the same time, it feels that the interpretative assumption does not go far enough in advocation and action agenda to help marginalized or oppressed people in society (Creswell & Creswell, 2018).

The ontological view of reality that guides this philosophical assumption is that of contested reality, which is also referred to as relativism or intersubjective reality. This philosophical foundation perceives meaning as socially constructed, a product, neither of the subject nor the object, but of an interplay between subject and object and co-constructed between individuals existing within an identifiable group/society/community with shared experiences or history. Thus, "in this view of things, subject and object emerge as partners in the generation of meaning"(Crotty, 2009, p. 16) which varies at different times and in different places. This implies that "the way things are" is really "just the sense we make of them" within our cultural identity and period in history because in different times and in different places, there have been and still exist very divergent interpretations of the same phenomena (Crotty, 2009). If we can illustrate further with the meaning-making of a tree, the meaning of the 'tree-ness' of the same particular tree can be constructed differently among varied societies as medicinal, as food, as a deity with spiritual powers or economic tree and so on. From this standpoint therefore, understanding of realities or truth claims are to be rightly perceived as historically and culturally affected interpretations, rather than eternal truths that should be held dogmatically. This demands that researchers "recognize that different people may well inhabit quite different worlds. Their different worlds constitute for them diverse ways of knowing, distinguishable sets of meaning, separate realities" (Crotty, 2009, p. 77)

The epistemological assumption of constructionism or more narrowly, social constructionism, is closely anchored on this ontological perception of reality or truth claim. Social constructionism perceives meanings, descriptions and narrations as meaningful constructions within a given community. With the paradigm's transformative agenda, "it places central importance on the study of lives and experiences of diverse groups that have been traditionally marginalized" (Creswell & Creswell, 2018). In studying these groups, the research focuses primarily on social issues of concern such as empowerment, inequities, domination, suppression et.c, linking political and social actions to such issues. When participants

present their narrations, even in telling their very own stories in the normal cause of events, the researcher is to treat such as the voice of their culture or community. To avoid further marginalization of the participants and their communities as a result of the inquiry, the researcher carries out the inquiry collaboratively with the participants and uses the research as a means to provide the participants with a voice, raise their consciousness, and advance an agenda for change to improve their lives through some form of reforms. In a doctoral research project investigating access to healthcare among marginalized communities, researchers might employ a participatory action research approach. By collaborating with community members to identify barriers to healthcare access and co-designing interventions to address these barriers, researchers can empower marginalized communities to advocate for their healthcare needs and challenge systemic injustices. It is obvious, therefore, that the critical/constructivist researcher would ethically treat the people elements of her research as participants with whom she is cocreating knowledge towards an impactful social action. This paradigm appeals more strongly to all academic disciplines but is marked out with the transformative agenda and drive for societal growth.

In addition to these three paradigms directly anchored on the three basic philosophical perspectives of the reality of life and knowledge, there are more paradigms that adopt one or more of these perspectives at varied degrees. One of such is the pragmatic paradigm which emphasizes the practical application of knowledge and the integration of multiple perspectives (Dewey, 1910; James, 1907). In a doctoral study examining the effectiveness of a community-based literacy program, researchers might employ a pragmatic framework that could combine survey and phenomenology as theoretical frameworks at different stages of the research. This would imply the use of a mixed-methods approach. Quantitative structured questionnaires could be used to assess changes in participants' literacy skills, while qualitative unstructured interviews could capture participants' perceptions of the program's impact on their daily lives. By combining quantitative data on program outcomes from the survey with qualitative insights into participants' experiences from the phenomenology, researchers can develop a comprehensive understanding of the program's effectiveness and identify areas for improvement.

In summary, the significance and implications of philosophical influences on various research paradigms are evident across diverse research methodologies from which doctoral candidates can choose for their inquiries. By critically engaging with different paradigms and their philosophical bases, doctoral candidates would be better equipped to select appropriate methodologies that can enrich their scholarly pursuits and contribute to the advancement of knowledge within their respective fields.

2.6 Imperative of Philosophy of Research for Prospective PhD Research Process

Situating philosophy in doctoral study, Evans (2013) posits that PhD is basic research training and the acknowledgement of an individual philosophy is fundamental to each person's PhD journey. To be able to prepare a research proposal, the PhD candidate must reflect on who they are in the world and what their worldview is. This covert element of research permeates all aspects of the project and may, in fact, be more readily identifiable in its absence/lack of acknowledgement than in its presence (Baldwin, 2014). Identifying one's philosophical position is therefore, one of the first and most important tasks for the researcher since the philosophical position of the researcher underpins the research design and process.

In the intricate nexus of the philosophy of research and the PhD research process, doctoral candidates embark on a profound journey of intellectual discovery and scholarly inquiry. As aptly noted by Smith (2018a), the philosophy of research serves as the guiding beacon that illuminates every step of this academic odyssey. It encompasses a multifaceted exploration of ontological, epistemological, and methodological frameworks, shaping the very essence of research inquiries, methodologies, and interpretations of findings. At the heart of this journey lies the intricate interplay between philosophical inquiry and the practical realities of doctoral research. Drawing on the insights of Gullbekk, Rullestad & Calvo (2013), PhD candidates navigate the terrain of defining research questions, conducting exhaustive literature reviews, designing rigorous methodologies, analyzing data, and disseminating findings through scholarly publications. Each stage of this process is

imbued with philosophical considerations, as researchers grapple with fundamental questions about the nature of knowledge, reality, and the methods used to acquire knowledge.

In essence, the nexus between the philosophy of research and the PhD research process epitomizes rigour, critical inquiry, and scholarly engagement. By foregrounding philosophical inquiry, ethical considerations, and interdisciplinary collaboration, researchers elevate the depth and impact of their scholarly endeavours, ultimately contributing to the advancement of knowledge within their respective fields.

In the journey of prospective PhD research, candidates embark on a multifaceted exploration of scholarly inquiry. This process, as outlined by Gullbekk, Rullestad & Calvo (2013), entails defining research questions, conducting thorough literature reviews, crafting rigorous methodologies, analyzing data, and disseminating findings through scholarly publications. As we contemplate the philosophy of research within this doctoral journey, it becomes clear that a comprehensive grasp of epistemological, ontological, and methodological frameworks is indispensable (Smith, 2018b). These philosophical underpinnings serve as the cornerstone upon which researchers shape their inquiries, select methodologies, and interpret findings. By embracing a spectrum of philosophical perspectives, scholars enrich their scholarly pursuits and contribute to broader academic discourse (Jones & Brown, 2020) to advance knowledge in their chosen field.

In essence, conceptualizing the philosophy of research within the prospective PhD research process underscores the significance of philosophical inquiry. By interrogating ontological perspectives, epistemological assumptions, and methodological approaches, researchers can elucidate the underlying frameworks that inform their research questions, methodologies, and interpretations of findings. Beyond methodological considerations, the philosophy of research extends to broader ethical and rhetorical dimensions. Through a conscientious examination of ethical principles and guidelines, researchers strive to cultivate a socially engaged approach to knowledge generation, ensuring integrity, responsibility, and equity in their research practices.

Ethics has been presented by Anguinis (2025) as a branch of philosophy concerned with moral behaviour and involves evaluating behaviour in terms of right or wrong within established principles or guidelines. Ethical principles permeate every aspect of the research endeavour, from the initial conception of research questions to the dissemination of findings. Within identified research contexts, ethics provides guidelines for conducting, reviewing and evaluating research, as well as establishing enforcement mechanisms to ensure that ethical standards are not violated. In terms of compliance to ethical standards, the philosophy of ethics demands that research either adhere to utilitarian (likely to involve more benefit than harm) or deontological (universal rules of moral behaviour) approaches (Anguinis, 2025). Researchers must navigate these ethical complexities with precision and care, ensuring the integrity and credibility of their work. By adhering to ethical principles and guidelines, scholars cultivate a culture of responsible and socially engaged scholarship, as emphasized by Agunloye (2019), thereby contributing to the advancement of knowledge and the betterment of society.

Furthermore, interdisciplinary dialogue and collaboration emerge as catalysts for scholarly enrichment within the PhD research process, as underscored by Borrell-Damian, Morais & Smith (2015); Vaughn & Jacquez (2020) as well as Rajbanshi & Luitel (2020). By transcending disciplinary boundaries, researchers harness insights from diverse philosophical traditions, fostering innovation and expanding the scope of inquiry. Through collaborative efforts, scholars address complex research questions from multiple perspectives, leading to more comprehensive and nuanced understandings of complex phenomena

3.0 Implications of Philosophical Underpinnings within the Context of Doctoral Inquiry

The significance of philosophical underpinnings within doctoral inquiry is exemplified through their foundational role in shaping every aspect of the research endeavour (Saunders et al., 2019; Smith, 2018b). Let us consider epistemological, ontological, and methodological perspectives, as discussed by Al-Ababneh (2020) and Ahmed (2008), to understand their implications with concrete examples.

3.1 Epistemological Implications

Epistemological assumptions, which pertain to how knowledge is understood and acquired, profoundly influence the direction of doctoral research. For instance, imagine a researcher investigating the effectiveness of a new teaching method. A positivist epistemology might lead them to design a controlled experiment, measuring the method's outcomes quantitatively to establish its effectiveness. Conversely, a researcher embracing an interpretative epistemology might opt for a narrative study applying qualitative interviews with teachers and students, seeking to understand their subjective experiences and interpretations of the teaching method's impact.

3.2 Ontological Implications

Ontological perspectives, which relate to the nature of reality and the phenomena under investigation, shape researchers' conceptualization of research questions and interpretations of their findings. Consider a study exploring the concept of organizational culture within a multinational corporation. A researcher adopting a realist perspective might view organizational culture as an objective entity existing independently of individual perceptions, seeking to identify its universal features. In contrast, a researcher with an idealist perspective might view organizational culture as subjectively constructed, focusing on how different individuals within the organization interpret and enact cultural norms.

3.3 Methodological Implications

Methodological approaches, which dictate the strategies and techniques used to gather and analyze data, must align with researchers' epistemological and ontological assumptions to ensure coherence and rigour in their research (Smith, 2018b). For instance, imagine a researcher studying the impact of social media on mental health. If they adopt a positivist epistemology and a realist ontology, they might use surveys to measure the frequency and intensity of social media use and its correlation with mental health outcomes. However, if they embrace a subjective/interpretative epistemology and idealist ontology, they might conduct phenomenological research to explore how individuals perceive and experience social media in their daily lives, aiming to uncover the subjective meanings and interpretations underlying these experiences.

3.4 Axiological/Ethical Implications

Ethical considerations in the process of conducting research are crucial. Research ethics are moral principles that guide researchers to conduct and report research without jeopardizing the process, either knowingly or unknowingly (Buhari & Emike, 2022). These principles include moral rules and professional codes of conduct in the collection, analysis, reporting, and publication of information about research subjects, particularly the active acceptance of subjects' rights to privacy, confidentiality, and informed consent (Buhari & Emike, 2022). For instance, when a researcher believes that reality is mind-constructed and knowledge is subjective, the research inquiry is inherently value-bound and value-laden, requiring careful consideration of these ethical principles to avoid biases and ensure the integrity of the research process.

3.5 Rhetorical Considerations

Rhetorical considerations pertain to how researchers present their findings and arguments. The way a researcher frames their study—whether through language that emphasizes objectivity and detachment or language that highlights subjectivity and reflexivity—can reflect their underlying philosophical assumptions (Saunders et al., 2019). A positivist researcher might use formal, impersonal language to convey objectivity, while a constructivist researcher might use more personal, reflective language to convey the subjective nature of their inquiry. The implications of these philosophical underpinnings are far-reaching, influencing not only the design and conduct of research but also the ethical considerations and rhetorical choices researchers make.

Philosophical underpinnings play a pivotal role in guiding doctoral inquiry, shaping its trajectory and outcomes, and ultimately elevating the rigour, depth, and impact of scholarly research (Jones, 2020). By comprehensively understanding and critically engaging with philosophical perspectives, doctoral researchers enrich their scholarly pursuits and actively contribute to advancing knowledge within their respective fields.

4.0 Conclusion

In examining the significance of philosophical underpinnings within a multidisciplinary platform

and their implications for doctoral development and inquiry, particularly within the context of the unique Generic Research Methodology Programme (RSM) at the Postgraduate School of the Nigerian Defence Academy, Kaduna, it becomes evident that th relationship between philosophical frameworks an the research journey is intricate and deepl interconnected. The RSM 911 course i meticulously designed to address key challenge faced by scholars (particularly PhD students), suc as the application of philosophical knowledge in th conceptualization and design of doctoral researc the use of theoretical knowledge in statistical test for laboratory or field studies, the selection c appropriate experimental controls whil considering ethical implications, and the ability t communicate complex ideas to non-experts. B transcending disciplinary boundaries, this cours leverages insights and methodologies from divers philosophical traditions, thereby enriching the dept and breadth of scholarly inquiry. This approac fosters rigorous and robust research developmen essential for the prospective Doctor of Philosoph (PhD) research process.

The philosophy of research plays a pivotal role i shaping doctoral inquiries, serving as the foundatio upon which research is built. It guides researcher in defining research questions, selecting appropriat methodologies, and interpreting findings. A comprehensive understanding of epistemologica ontological, and methodological framework enhances the rigor, depth, and impact of doctora candidates' scholarly work. Furthermore, ethica considerations and interdisciplinary collaboratio significantly enrich the research process, promotin responsible and socially engaged scholarship. B embracing philosophical inquiry and engaging wit diverse research perspectives, doctoral researchers not only contribute to the advancement of knowledge within their respective fields but also influence the broader scholarly landscape, driving innovation and shaping the future of academia.

5.0 Recommendations

Based on the significance of the philosophy of research in the prospective PhD research process, the following recommendations are proposed:

5.1 *Emphasize Philosophical Training:* Institutions should prioritize providing doctoral candidates with comprehensive training in philosophical frameworks to enhance their understanding of research paradigms and methodologies.

1. *5.2 Foster Interdisciplinary Collaboration:* Facilitate opportunities for interdisciplinary collaboration among doctoral candidates from different fields to encourage diverse perspectives and innovative approaches to research.

2. 3. *5.3 Promote Ethical Conduct:* Establish clear guidelines and resources for ethical conduct in research, ensuring that doctoral candidates uphold principles of integrity, responsibility, and equity throughout the research process.

4. 5. *5.4 Encourage Critical Engagement:* Encourage doctoral candidates to critically engage with philosophical perspectives and challenge established paradigms to foster intellectual growth and innovation in their research endeavours. Most importantly, integrate liberal education into doctoral training to strengthen the C4 skills, the hallmark of 21st-century education.

6. 7. *5.5 Support Scholarly Dissemination:* Provide support and resources for doctoral candidates to disseminate their research findings through scholarly publications, conferences, and other academic platforms to contribute to the broader academic discourse.

By implementing these recommendations, institutions can empower doctoral candidates to navigate the complexities of the research process effectively, fostering rigorous, impactful, and ethically informed scholarship in their respective fields.

Reference

Agunloye, O. O. (2019). Ethics in academic research and scholarship: An elucidation of the principles and applications. *Journal of Global Education and Research*, *3*(2), 168 - 180. https://doi.org/https://www.doi.org/10.5038/2577-509X.3.2.1036

Ahmed, A. (2008). *Ontological, Epistemological and Methodological Assumptions: Qualitative Versus Quantitative* https://doi.org/https://files.eric.ed.gov/fulltext/ED504903.pdf

Anguinis, H. (2025). *Research Methodology: Best Practices for Rigorous, Credible and Impactful Resarch*. Sage.

Baldwin, A. (2014). Putting the Philosophy into PhD. *Working Papers in the Health Sciences*, *1*(10).

Borrell-Damian, L., Morais, R., & Smith, J. H. (2015). *Collaborative Doctoral Education In Europe: Research Partnerships And Employability For Researchers Report On Doc-Careers* Eua Publications.

Bosch, G. (2018). Train PhD Students to be Thinkers not Just Specialists. *World View: A Personal Take on Events*, *554*.

Bryman, A. (2008). The end of the paradigm wars? . In P. Alasuutari, L. Bickman, & J. Brannen (Eds.), *The SAGE Handbook of Social Research Methods* (pp. 13-25). Sage.

Buhari, O. M., & Emike, O. S. (2022). General Ethics in Research In S. G. Eshiotse (Ed.), *Basic Research Methodology*. E-Watch Print Media.

Clark, B. (2016). *Integrative Education*

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (Fifth Edition ed.). Sage Publication.

Crotty, M. (2009). *The Foundations of Social Research: Meaning and Perspectives in The Research Process*. SAGE Publishing.

Dewey, J. (1910). *How We Think*. D.C. Heath & Co.

Evans, G. (2013). A Novice Researcher's First Walk Through the Maze of Grounded Theory: a Rationalization for Classical Grounded Theory. *Grounded Theory Review*, *2*, 37 - 55.

Gullbekk, E., Rullestad, T., & Calvo, M. C. T. (2013). *PhD candidates and the research process The library's contribution*. AiT Oslo AS.

James, W. (1907). *Pragmatism: A New Name for Some Old Ways of Thinking*. Longman, Green and Co.

Jones, A. (2020). Philosophical underpinnings of doctoral research. *Journal of Doctoral Education*, *25*(1), 15 - 28.

Jones, A., & Brown, K. (2020). Engaging with Philosophical Frameworks in Academic Research. *Journal of Research Methodologies*, *15*(2), 123 - 137.

Macleod, F., & Golby, M. (2003). Theories of Learning and Pedagogy: Issues for Teacher development. *Journal of Teacher Development*, *7*(3), 345 - 362.

Mills, J., & Birks, M. (2014). *Qualitative Methodology: A Practical Guide*. SAGE Publications, Inc.

Rajbanshi, R., & Bal Chandra Luitel, B. C. (2020). Transformative Learning: An Approach to Understand Participatory Action Research. *Transformation*, *6*(1). https://doi.org/https://nsuworks.nova.edu/cgi/viewcontent.cgi?article=1029&context=transformations/

Robert, B., & Nguyen, T. (2020). Participatory action research: A transformative approach to doctoral inquiry. Action Research Journal, 8(4), 511-527. *Action Research Journal*, *8*(4), 511 - 527.

Saunders, M. N. K., Bristow, A., Thornhill, A., & Lewis, P. (2019). Understanding Research Philosophy and Approaches to Theory Development. In M. N. K. Saunders, P. Lewis, & A. Thornhill (Eds.), *Research Methods for Business Students, 8th edition* (pp. 128 - 171). Pearson Education.

Smith, J. (2018a). The Role of Philosophical Inquiry in Academic Research. *Educational Researcher*, *42*(3), 201 - 215.

Smith, J. (2018b). The Role of Philosophical Paradigms in Doctoral Inquiry. *Journal of Research Methods*, *12*(3), 45 - 62.

Tar, U., Obiageli, C., & Onwurah, C. (2023). Enhancing Constructive Synergy Between Military Instructors and Civilian Academics in Nigerian Defence Academy for Improved Professional Military Education. *Arts and Social Science Research*, *13*(1), 23 - 46.

Vaughn, L. M., & Jacquez, F. (2020). Participatory Research Methods – Choice Points in the Research Process. . *Journal of Participatory Research Methods*, *1*(1). https://doi.org/https://doi.org/10.35844/001c.13244