BOARD OF POSTGRADUATE STUDIES

The Board of Postgraduate Studies (BPS) plays a critical role in the realization of the university's mandate through the provision of a supportive ecosystem that promotes postgraduate students' research excellence. ***My Research Granary*101** is a series of simplified write-ups by Dr. Jackson Ndolo, that seek to build research capacity among KCA university postgraduate students, however, the information may be of help to any researcher who wishes to improve their academic writing skills with ease. This is in with the mantra, "BPS where students' research matters". This write-up provides information on; **Key Skills for Postgraduate Students to Draft a Research Concept, Seek Funding, Undertake the Research, Disseminate, and Commercialise.**

Key Skills for Postgraduate Students to Draft a Research Concept, Seek Funding, Undertake the Research, Disseminate, and Commercialise

1.0 Introduction

In the 21st century, postgraduate research transcends mere academic requirement and becomes a pathway for innovation, societal transformation and sustainable value creation. For postgraduate students especially those in African contexts success in research demands the cultivation of a multidimensional skill-set that spans conceptualisation, resource mobilisation, execution, dissemination and commercialisation. Central to this skill-set are the transversal competencies identified by UNESCO in its 21st-century skills framework: critical thinking, creativity, communication, collaboration, digital and information literacy, adaptability, initiative and leadership (UNESCO, n.d.). As Greiff and Borgonovi (2022) emphasise, these skills are foundational in a "rapidly changing, increasingly dynamic and unpredictable environment".

2.0 Drafting the Research Concept

The first milestone is drafting a robust research concept. This requires the interplay of critical thinking (to identify and interrogate the research problem), creativity (to imagine novel angles or methodologies), and information literacy (to conduct a meaningful gap analysis). For example, a student investigating the impact of mobile finance on SMEs in Kenya must not only pinpoint the problem, but also situate it in the local policy-ecosystem, draw on relevant literature and identify a feasible yet innovative approach. In Kenya, a study found that proficiency in topic identification, literature critique and methodological choice significantly influenced completion time for postgraduate students (Muthiani, Muthima, & Itolondo, 2023). Thus, mastering these skills early is critical. Before finalising your concept, ask: Does this problem matter to stakeholders? What is genuinely new or under-studied? Which 21st-century skill am I leveraging?

3.0 Seeking and Securing Research Funding

Once the concept is defined, the next stage is resource mobilisation. Here, communication (to craft persuasive proposals), collaboration (to engage supervisors, networks, funders), digital literacy (to locate and apply through online portals) and initiative (to take charge of the process) come to the fore. A persuasive proposal aligns with funders' thematic priorities (for example, sustainable development goals), clearly articulates the societal relevance and describes feasible methods and deliverables. Participating in research conferences and academic associations enhances networking and credibility. In Africa, despite increased attention to 21st-century skills, many assessment and educational systems are still not oriented toward these competencies (Kim & Care, 2020). Thus, postgraduate students must proactively bridge this gap. Map funder priorities and craft your letter of intent using language that emphasises innovation, relevance and

outcomes, all underpinned by 21st-century terminology (e.g., “collaborative”, “innovative”, “digital-enabled”).

4.0 Undertaking the Research

Execution of the research demands methodological rigour, but in the 21st-century environment it also demands adaptability (to changed circumstances), productivity (to meet timelines), digital literacy (to use tools such as SPSS, NVivo, GIS, KoboToolbox) and collaboration (if multidisciplinary). For example, a study on climate adaptation practices in Bungoma County may deploy mobile data collection, GIS mapping and stakeholder workshops — requiring agility and digital competence. Additionally, ethical literacy remains essential: obtaining informed consent, maintaining confidentiality, and reporting with integrity. Studies in Kenyan higher education illustrate that deficiencies in core research skills (e.g., choice of design, instrument development) hinder timely completion. (Muthiani et al., 2023). Build a Gantt chart of your project and slot in tasks that also develop your 21st-century skills e.g., “team-analysis workshop” (collaboration), “software demo” (digital literacy), “pivot meeting” (adaptability).

5.0 Dissemination of Research

Research does not complete until shared and in the modern era, shared widely and effectively. Dissemination requires communication (in academic writing, policy briefs, public media), collaboration (with co-authors, community stakeholders), digital and media literacy (to produce infographics, podcasts, social-media summaries) and creativity (to translate complex findings for diverse audiences). For example, a study on sustainable procurement practices can result in a peer-reviewed article, a policy brief for county officers, a webinar for NGOs, and a short video for industry practitioners. The landscape of dissemination is digital, participatory and multi-modal. After your analysis is complete, plan a “communication sprint”: write an article,

record a 3-minute explainer video, and prepare an infographic, each exercise hones a different 21st-century skill.

6.0 Commercialising Research Outputs

The final frontier is translating research into practical innovation commercialisation or social enterprise. This stage demands entrepreneurial mindset, leadership, creativity (to design marketable solutions), problem-solving (to overcome real-world constraints), collaboration (with industry, incubators, technology-transfer offices) and adaptability (to consumer feedback). For instance, a postgraduate student developing a low-cost water-purification device must understand patenting, prototype development, business models and stakeholder engagement. Social-science students can similarly convert findings into consultancy services, training modules or policy-advisory frameworks. By doing this, the student becomes not just a researcher, but a knowledge-entrepreneur and contributor to sustainable development. Map your stakeholder ecosystem (e.g., industry partner, incubator, funder), identify a minimum viable product (MVP) from your research output, and draft a one-page business plan you are now practising commercialisation.

In conclusion

For postgraduate students, mastering the full research lifecycle from concept to commercialization necessitates more than technical competence. It demands integration of the 21st-century skills espoused by UNESCO: critical thinking, creativity, communication, collaboration, information and digital literacy, life and career skills, and personal and social responsibility (UNESCO, n.d.; TVETipedia, 2024). As Karaca-Atik et al. (2024) show, skills such as collaboration, creativity and problem-solving significantly contribute to sustainable careers in the social sciences. In African contexts, while challenges remain in implementation (Likoko, Khaemba, & Mabunde, 2024), there is also a unique opportunity: postgraduate students

who adopt these competencies position themselves not merely as scholars, but as change-agents and innovators, driving research that matters. The Granary offers this roadmap as a guide for such transformative scholarship.

NOTE: ***My Research Granary 101/07/2025*** *will present Balancing Studies, Work, and Family Life: Strategies for Postgraduate Students in African Universities.*

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