UNIVERSITY OF KWAZULU-NATAL ™
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THE RESEARCH FRAMEWORK
RESEARCH POLICY 1

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A: POLICY STATEMENT

1. Purpose statement

The purpose of this policy framework on research is to set the overall objectives of the suite of research policies of the University, and to outline broad strategies for the achievement of these objectives.

This policy recognises the importance of research at Universities, and confirms the University's commitment to build a strong research culture. The policy establishes the core principles that will guide the University in the development of this culture.

It is required to provide the general principles that underpin all of these policies, and which links them together.

This policy framework is the overarching document in respect of all the research sub-policies, as well as other policies that have a bearing on research at the University.

2. Introduction and background

A key role of Universities in society is to conduct research. This research contributes to society in several different ways.

This policy framework acknowledges the University's recognition of this role and affirms its commitment to it.

In addition, this policy framework recognises the University's vision is to be the Premier University of African Scholarship.

This policy framework sets out the principles and guidelines that will shape the research endeavour to assist the University in achieving these and other objectives. It is intended to provide the overarching framework that will guide and shape the research endeavour at the University in the context of UKZN's Strategic Plan.

The following policies and procedures will have a bearing on the research policies:
- Plagiarism Policy and Procedures
- Policy on Private Remunerative Work
- Professional Conduct for Academic Staff
- Academic Staff Promotion Procedures and Guidelines
- Integrated Talent Management Policy
- Policy on African Indigenous Knowledge Systems
- Policy on Intellectual Property
- Policy on Open Access Mandate
- Policy on Honorary Appointments

This is Part I of six sub-policies on research:
- Research Policy II – Developing, Retaining and Rewarding Researchers
- Research Policy III – Collaborative Research and Strategic Research Initiatives
- Research Policy IV – Institutes, Centres and Units
- Research Policy V – Ethics

- Research Policy VI – Grants and Contracts Policy

3. Definition of terms

Student – shall refer to both full- and part-time students of the University, both registered postgraduate (PG) and undergraduate (UG).

University – shall refer to the University of KwaZulu-Natal

Research-related projects or activities constitute the following:
- Creative, experimental, evaluative, interpretative, analytical, exploratory and/ or explanatory work aimed at contributing to existing knowledge, addressing specified problems and/ or developing new applications or innovations. The above includes activities/ projects that:
  - Develop or challenge existing theories or theorems
  - Test the validity of instruments, procedures, etc.
  - Focus on critically analysing and understanding a phenomenon or phenomena
  - Focus on project implementation and assessment or are practice-based
  - Construct appropriate models or systems
- The work is undertaken on a systematic/logical basis that conforms to clearly articulated scientific or methodological approaches that aligns to acceptable norms within a particular field or discipline (this can include multi-, trans- or inter-disciplinary approaches). This entails clearly discernible steps to produce, collect and analyse information/ data.
- The intended beneficiaries of research-related projects extend beyond the direct participants or funders and have broader societal or scientific relevance.
- In the academic context, clearly stipulated research outputs (such as theses, dissertations and research projects linked to student supervision, academic publications, patents, etc.) should be part of the research project.
- Compliance with Research Ethics and Intellectual Property policies and legislation.

4. Scope

This policy applies to all staff, students and affiliates of the University engaged in research at or in collaboration with the University.

This research policy framework provides guidelines and direction on the University's position articulated next.

5. The Policy

5.1. Universities, Knowledge and Society

5.1.1. Universities are part of the society in which they are embedded. They draw both funding and sustenance from it, and their members are also members of society. They serve society through, for instance, developing high-level human

resources and skills, by analysing and evaluating society and by being a key part of society's intellectual and cultural life. At the same time they are a part of an unseen entity, the international body of scholarship.

5.1.2. Universities, through the performance of research, teaching and community engagement, contribute to society in many ways, such as:

> 5.1.2.1. Development of new knowledge (research).
>
> 5.1.2.2. Interpretation and integration of knowledge (scholarship).
>
> 5.1.2.3. Passing on of knowledge and provision of education at a high level (teaching).
>
> 5.1.2.4. Application of knowledge and its use for the benefit of society (for instance, through forms of community engagement and in industrial applications).
>
> 5.1.2.5. Contribution to the growth of broad-based intellectual cultures and thereby strengthening democracy and the capacity of societies to be responsive to the challenges of social justice.

5.1.3 The University understands and affirms the importance of the symbiotic relationship between the quality of learning/teaching and the quality of research. It therefore seeks to build research across all of its Schools and Colleges and to integrate as much as possible its postgraduate students in the education of its undergraduate students. Furthermore, the University is committed to foster and support research that are aligned to the goals and objectives set out in UKZN's Strategic Plan and South Africa's national policy landscape including the National Development Plan: Vision for 2030; Education White Paper 3: A Programme for the Transformation of Higher Education; National Research and Development Strategy (2002) and Intellectual Property from Publicly Financed Research and Development Act, 2008 (Act No. 51 of 2008).

5.2. The Premier University of African Scholarship

It is the University's vision to be the premier institution of African Scholarship and a knowledge-generating institution.

5.2.1. Being the "premier university" means being not just "another university", but the "leading" university, within the context of "African Scholarship". Amongst universities' core activities, the key elements that separate them from other educational institutions are the generation and integration of new knowledge. Internationally, universities tend to be assessed in terms of their research and scholarship, and in particular their contribution to knowledge and to society through innovative, paradigm breaking work. Thus to be the "premier" university, it is imperative that the University should not only broaden its research base and draw into the research ethos a greater proportion of under-represented groups, but also to have in place mechanisms to foster and to attract truly outstanding research leaders, and to develop such research leaders of the future.

5.2.2. Like many intellectual concepts, the term "African Scholarship" is one that has been, and still is, the subject of debate. However, there seems to be consensus that what it is not meant to be is an exclusive, racially-based form of scholarship. Nor is it meant to be an alternative to what is often termed "Western scholarship" (which includes important contributions from, for instance, countries like India, China and Japan). But how are we to begin to understand the concept of African Scholarship? One approach is for this institution to accept the responsibility for focusing attention

on the accumulation, production and dissemination of knowledge about the various local contexts (social, physical and psychological) within which UKZN is embedded.

5.2.3. There is recognition that the best universities are anchored in their own societies, while also being a part of, contributing to and benefiting from the fruits of international scholarship. Through their knowledge production they build both their own societies and the global body of knowledge. In the history of many areas of scholarship one finds numerous examples of fundamental breakthroughs that were driven by context-specific societal needs – "applied research" feeding into "basic research", and vice versa.

5.2.4. In South Africa, and more broadly, in Africa, there are many issues that need solutions through intensive high-level research. An obvious one is the multi-faceted scourge of HIV/AIDS, the solution of which requires world-class research inputs from a wide range of disciplines. In the research process, it is likely that considerable inputs can be made to global knowledge.

5.2.5. Another important aspect of African Scholarship involves the use and development of local indigenous knowledge and to establish new dynamic interfaces between different knowledge forms so that they may be codified and developed in the interests of both South African society and the rest of the world.

5.2.6. African Scholarship brings to the fore the kinds of knowledge that allow institutions such as UKZN to see themselves as being complementary to the global world of knowledge rather than supplementary to it.

5.3. Globalisation
5.3.1. An important aspect of globalisation is internationalisation and UKZN's drive to become a leading global institution, orientated towards national and international collaboration and partnerships. Additionally, UKZN is cognisant of global university rankings and is focused on improving research capacity and outputs to improve our rankings and standing as a global player in Higher Education.

5.3.2. An obvious impact of globalisation is that manufacturers in many countries have access to a wider range of markets than in the past – thus local manufacturers, for instance, experience global competition. Another effect of globalisation is observed in the cultural arena, for instance, the universality of certain types of pop music, clothing and soft drinks. However, its effects go beyond the economic, and pop-cultural, and also impact on research agendas.

5.3.3. Globalisation in education is continually exposing universities to international benchmarking standards, thereby compelling them to adopt better methods of implementation of their missions of research, teaching and learning as well as community engagement.

5.3.4. Knowledge is universal, and we can all share in, and contribute to all knowledge. By contributing to knowledge, we earn the right to share in universal knowledge, and are better able to interpret and use knowledge generated elsewhere. Globalisation contributes to the broadening of the base of knowledge production and thereby opens the way for institutions such as UKZN to shape their entry into that terrain.

5.3.5. We can best contribute to knowledge where we have a competitive advantage. This may be based on our geographical position, our social and human environment, our history or our intellectual strengths and resources.

5.3.6. Globalisation means not only that we can access global knowledge, but also that others can tackle our problems, and benefit from our environment. Whilst encouraging collaboration in such areas, we should also ensure that the greatest expertise on African problems should be in and from Africa.

5.3.7. Some academics concentrate on solving local societal problems, and are then satisfied with an improvement in the community's quality of life as the sole end-product. Although such activities are laudable, and they underline the contribution of the University to the community, it is important to realise that our local solutions might be equally applicable to other environments. As a university it is, therefore, required that it will shape its engagement programmes to be designed in terms of knowledge producing projects. An example of this is in legal research, much of which is context specific, and so has a direct impact on local rather than global jurisprudence.

5.3.8. One of the new characteristics of research systems during this period of globalisation is the diffusion of knowledge production out of universities into broader society. It is therefore imperative that UKZN actively defines new and interesting research partnerships as a way of building high level capacity in terms of experts, equipment and ethos.

5.4. Strategic Research Initiatives

As part of its wish to be internationally competitive as a research institution it is imperative that the University develops certain areas in which it is truly outstanding.

5.4.1. The University thus has to identify certain niche areas in which it has comparative advantage, and exploit the opportunities offered by them. In particular, it has identified a restricted number of major Research Focus Areas and Institutional Signature Projects, which are provided with additional funding. These initiatives represent areas where the University has considerable existing research strength, and can justifiably claim to be leaders in the field. The emphasis is on the value added by the enhanced collaboration – the whole being greater than the sum of its parts. This may often be in the context of trans- or multi-disciplinary initiatives that strengthen research, leading to prestigious publications. The areas concerned may be, but are not exclusively, of importance to the community and the state, and can attract substantial multi-year funding from outside sources.

5.4.2. In addition to setting up strategic initiatives based on existing strengths, the University from time to time undertakes foresight exercises, and hence takes strategic decisions to develop research strengths in areas that are likely to have particular relevance to our society in the near future. However, as the development of research expertise in such a niche area is likely to be an expensive exercise, it is important that such initiatives are carefully evaluated before they are embarked upon.

5.4.3. More broadly, the University encourages and fosters collaboration between researchers working in related fields, particularly where they are in different Schools or geographically separated. Such collaboration is likely to provide added value to

the research of individuals or small groups (and hence to the University's output and reputation) whilst not diluting the individual's freedom to choose the areas and organisation of research that he/she might choose to work in. To this end, it recognises collectives in the form of Institutes, Centres and Units, with formal University recognition. These will be described in more detail in Research Policy IV.

5.5. Pure and Applied Research

There is no real dichotomy between "pure" and "applied" research - the only difference that one should be cognisant of is the difference between good and poor research. As a comprehensive research institution, UKZN has the responsibility to support the performance of research throughout the spectrum from basic, fundamental (Mode 1-type) research on the one hand to product-related (Mode 2-type) research on the other hand. In addition, it is imperative that research as or affecting social change and/or action is pursued ethically and responsibly at UKZN.

5.5.1. In the current South African situation, there is justifiably a great emphasis on the importance of needs-driven research, research that arises out of problems facing society. In fact, this reflects a world-wide drift that has occurred, as universities are being called to account by society and by politicians to a greater extent than had been the case in the past. Academics are being told to "get out of their ivory towers", and rather tackle the problems facing the community that supports them. That is certainly important, and the University is proud to be making important contributions to solving the problems facing South African society and the world more generally.

Needs-driven research, whether industrial or development oriented, requires high-level research abilities, and if shaped carefully these often lead to a greater fundamental understanding, and hence to a contribution to global knowledge.

5.5.2. However, as there is greater pressure to do applied research, to solve the observed and perceived problems that affect our society, universities remain the only area of our society where one can, as it were, pause, and carry out purely curiosity-driven research, to examine the non-utilitarian, that which moves the spirit. In fact this is a responsibility of universities such as UKZN. In doing so, we reaffirm our humanity, because curiosity is a human trait, and it is human to indulge in curiosity-driven exploration of nature, the mind and society.

5.5.3. It should be recognised that, although the time-delays may sometimes be significant, the curiosity-driven research of today often leads to the applications of the future. For instance, some of Einstein's esoteric work at the beginning of the twentieth century led to the development of the laser 50 years later and, hence, to surgical tools, DVDs and refined motor-car guidance mechanisms of the future. And South African-born Sydney Brenner's recent Nobel Prize for Medicine gave recognition to fundamental cell studies carried out nearly forty years ago on a 1mm long worm – but that early arcane research has led to a greater understanding of and strategies for the solution of important medical problems, such as cancer. In short, without basic research and knowledge, there would be no knowledge to apply.

5.5.4. The University will continue to support the full spectrum of research, as long as it is good research.

5.6. Mode 1 and Mode 2 Knowledge Production

5.6.1. It has in the past been recognised that research is essentially an individual activity. Institutions do not do research: they can only foster and facilitate research, by appointing suitably qualified and committed people, and providing facilities and an environment in which the creative and intellectual spirit can unfold and research can flourish. The classic mode of research – what is often called Mode 1 knowledge production - is often discipline-based, performed by individuals or small groups and frequently defined in terms of academic imperatives. The outputs of this kind of research are peer evaluated journal articles and papers in conference proceedings.

5.6.2. However, during the last several decades one has seen the rise of different modes of knowledge production, one example of which is that referred to as Mode 2 knowledge production. These modes usually involve large-scale collaborative efforts, involving teams of experts from a variety of disciplines drawn from different institutional settings (including industry, communities, government institutions, etc.). The projects are defined in the context of applications and are therefore constructed by teams of researchers/experts drawn from the various settings described above. Examples of this kind of research are the large research projects aimed at understanding the most effective ways to roll-out an anti-retroviral drug programme and research into psycho-social, educational and economic impacts of HIV/AIDS. The outputs of these research projects often lead to peer-evaluated journal articles and papers in conference proceedings but they are also designed to produce information and knowledge for practical application or for policy development.

In this case the individual is a member of collaboration – and research becomes a social activity. In addition, these research activities often involve interdisciplinary and multi-disciplinary teams, where each contributes to the project from the base of a strong discipline-based knowledge.

5.6.3. The University is aware of both modes of knowledge production and seeks to create the environment in which both can flourish independently or in conjunction with each other.

5.7. National Research Policies

5.7.1. National policies have emphasised the importance of research for South Africa, particularly as the country moves towards developing a strong knowledge-based economy. The National Development Plan: Vision for 2030 and the National Research and Development Strategy (2002), for instance, all emphasise the need for the development of research skills in a broad sector of the economy, and place premiums on research.

5.7.2. The funding formula for universities underlines the importance of research development, by the funding allocated for graduating Masters and Doctoral students, as well as for publications in recognised research journals. Thus, in addition to the University's innate desire to be a strongly research-based institution, it makes good economic sense to develop our postgraduate structures and to encourage our research students to publish the fruits of their research in reputable research journals.

5.8. Human Resource Development

5.8.1. Universities have a particular role to play in educating people to develop enquiring minds and to foster a research approach, as well as a role in the education, development and training of the research community of the future.

5.8.2. Two key aspects that need to be addressed in this regard are firstly, the growth of a cadre of researchers from amongst those who were previously under-represented, and secondly, the fostering of the truly outstanding researchers, those who will enable us to be a first-rate research institution.

5.8.3. The first step in generating the researchers of the future is to provide them with exciting undergraduate courses, taught by competent, enthusiastic academics. Virtually all careers open to academically-trained personnel will expect people to adopt a "research" approach in their work, and so it is incumbent upon academics to engender that approach in undergraduate education. They can best do that by being active researchers themselves.

5.8.4. It is at the postgraduate level that the real education of researchers accelerates and it is one of the University's core activities. The performance of research might be considered a craft and it is during this period of postgraduate study that students imbibe high levels of knowledge and gain the necessary skills. Indeed, it should be regarded as one of the most important roles of the University as no other organ of society can provide this kind of education. Supervision is both a personal and a social activity, and at its best entails a personal chemistry between the supervisor and the student. The University thinks of research as a vehicle for the production of high-level human resources.

5.8.5. As a part of its drive to develop research and scholarship, the University aims to increase the proportion of its students who are registered for research degrees. It is acknowledged that this will increase the supervision requirements of senior researchers and this must be taken into consideration when allocating the workload of a supervisor.

5.8.6. The process of creation of the next generation of researchers continues with the development and nurturing of early career researchers – again, a key activity of a university. This can be achieved through the provision of postdoctoral fellowships and through provision of mentoring of and support given to junior staff, and in particular, in guidance to them in developing their research profiles. In particular, the University aims to increase the fraction of its staff who have a doctoral qualification, is engaged in postgraduate supervision and publishing in accredited journals. It is important to note that a recent initiative is that the University requires all academic staff to have their doctorates or be in the process of working towards the completion of doctoral degrees. The University is committed to ensuring that research activities are key components of staff career advancement, academic promotions and performance.

5.8.7. Finally, the development of early career researchers can only be done effectively if the University nurtures its research leaders and taps into their experiences, as well as into that of active retired staff, and research leaders in associated institutions, industry, etc.

5.8.8. As a part of its role in fostering the development of researchers, the Research Office arranges workshops and other mentoring sessions, and provides information and guidance in regard to national and international research funding opportunities. Scholarships for Masters and Doctoral students need to be actively sought and established to ensure the enrolment of good postgraduate students who will become enthusiastic researchers.

5.9. Research for the Community – Contract Research

5.9.1. The University encourages staff to take on research contracts where it can be shown that there is a clear scholarly advantage to be gained by the University.

5.9.2. In this context, it provides support and infrastructure, and reaps the rewards in publications, "personal growth" among researchers, postgraduate students, and income to staff and the institution, as well as making a societal contribution, be it to the public or private sector, society broadly, the region, the continent or globally. Furthermore, through facilitation provided by an Intellectual Property and Commercialisation Unit (UKZN Inqubate), technology and skills developed through academic research at the University can be transferred to the national economy.

5.9.3. However, the University does not accept the concept of taking on research contracts just to "make money", either for the individual or the institution. UKZN Inqubate is therefore tasked to generate and manage third stream income from large projects that align to the University's research vision and ethos. Further, the University frowns upon individuals who use contract research, and the students associated with such contract research, as a mechanism for personal enrichment. Additionally, it is expected that all research (even of a contract nature) undertaken by scholars at the University must be shaped with the intention of generating new knowledge.

5.10. Research Ethics

5.10.1. With reference to Research Ethics Policy V. the University is mindful that all its activities should be conducted in an ethical fashion, and that an ethical vision is instilled in all students, so that they will behave ethically in their later professional lives. In that context, the Research Office has developed, specifically for research activities, a set of research ethics policies, a code of conduct for staff, and a set of procedures for the implementation of the policy. These will be applied rigorously.

5.11. Research Freedom

5.11.1. Academic freedom is central to the academic research endeavour. One of the cherished freedoms of academia is the freedom to carry out research on any topic, subject to ethical considerations and the availability of facilities, and the associated freedom to publish the results of the research, subject to peer review, without hindrance from the institution. It is vital that this freedom be preserved. It is this environment of research freedom which allows and fosters the development of unusual ideas, and lateral thinking – paradigm-breaking developments can only occur when people are encouraged to think freely.

5.11.2. Coupled to this freedom is the importance of recognising that, although the University actively encourages collaboration, it nonetheless recognises the right of individuals to carry out the research of their choice and does not undervalue it, but does its best to provide the necessary funding and other support.

5.12. The Research Environment

5.12.1. A key requirement to retain our research leaders, to nurture and develop our early career researchers and our postgraduate research students is the provision of a supportive nurturing environment. In particular this requires provision of an appropriate IT structure, the necessary equipment and related facilities for research, a well-provided library (in particular with respect to research journals) and administrative, human resource and finance support structures that are truly supportive. Young researchers are provided with the opportunity to take up mentoring by senior scholars.

5.12.2. The University is home to a number of accredited journals. The creation of an 'internal' journal system where research can be prepared for publication and internally peer-reviewed, could be an opportunity for new researchers to hone their publishing skills, disseminate research results and receive small incentive rewards.

5.12.3. Finally, the administrative processes should be such as to ensure that decision-taking and action in this area are carried out with a minimum of bureaucratic overhead.

5.13. Funding of Research

5.13.1. The University will vigorously support research as one of its key missions. Such funding will be targeted to support work of high quality researchers and research groups across the full spectrum of disciplines, and both curiosity-driven and needs-driven research; to develop strategic initiatives; as seed funding for the development of new initiatives and for leveraging outside funding; to encourage and enhance collaborative efforts; to attract and sustain outstanding research leaders, and to develop future research leaders; and to broaden the base of active researchers, particularly amongst designated groups. University financial support will include contributions towards research running expenses, based mainly on research productivity, as well as funding for capital equipment.

5.13.2. A fundamental aspect of the funding policy is that individual researchers, in addition to benefiting from University funding, are expected to seek further funding from other sources. Staff are expected to apply to the National Research Foundation for funding, as well as to national and international funding sources and foundations, to commerce and industry. To this end the Research Office will provide support and advice.

5.14. Marketing of Research Achievements

5.14.1. A vital feature that has sometimes been underplayed in the past is the marketing of the University's research. This should include dissemination of research results in the broader local and international academic community, as part of the development of intellectual activities of the nation, and particularly in the South African community at large.

5.14.2 A key issue is to make accessible to the wider community the results of the University's research efforts, and to report with pride the performance of its outstanding researchers. Research results should be communicated as widely as possible using all means available including, but not limited to, research journals, conferences and the media. Researchers' achievements should be celebrated, and outstanding researchers should become role models.

5.15. The Quality of Research and the Research Environment

5.15.1. The University creates the environment for and expects its researchers to publish in high impact peer reviewed journals and it uses peer evaluation as a mechanism of quality assurance. The University creates a set of quality parameters for other forms of publications and creative arts to allow it to assess the quality of such research outputs.

5.15.2. The University conducts regular surveys to assess the quality of the research infrastructure and environment and to determine the state of research ethos in the institution. This includes the quality of supervision of postgraduate students.

5.15.3. Research Centres, Units and Groups are to be reviewed every five years as a means to assess their efficacy and effectiveness as key elements of the research enterprise.

5.15.4. University Research Ethics policies are reviewed periodically in line with University Policies.