POLICY ON RESEARCH ETHICS

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CONTENTS

Page

PART 1

General guidelines for ethical research

PART 2

Guidelines for research involving human participants

PART 3

Guidelines for animal, plant, molecular and cell research

PART 1

GENERAL GUIDELINES FOR ETHICAL RESEARCH

1. PREAMBLE

1.1 This policy is based on the vision of the University of South Africa (UNISA): *Towards the African University shaping futures in the service* of humanity*.*

1.2 Underpinning the Unisa vision are the values of ethics and collective responsibility, integrity, innovation and excellence, responsive student-centeredness and dignity in diversity.

1.3 UNISA is committed to an Afro-global research ethics perspective by:

- harmonising African beliefs, customs, values and social life systems as an integral aspect of research without disregarding globally accepted research ethic frameworks
- undertaking and promoting research that aims to benefit the people of the African continent and/or beyond its borders
- promoting an institutional ethos that is conducive to systematic knowledge development, critical discourse, intellectual curiosity, tolerance and a diversity of views within a framework of academic freedom
- maintaining and sustaining an environment for researchers that cultivates moral capital development through education; ongoing professional development and clear policies; standards and procedures, while preserving researcher autonomy
- cultivating in researchers the importance of maintaining social and moral responsibility towards research participants, communities/collectives, animals, environments and third parties, if applicable.

1.4 UNISA endorses the Singapore Statement on Research Integrity by promoting high standards of scientific work and strives for excellence in research that is open to public scrutiny[1].

1.5 UNISA endorses the joint Statement on Ethical Research and Scholarly Publishing Practices issued by ASSAf, CHE, DHET, NRF and USAf (available on https://www.nrf.ac.za/sites/default/files/documents/STATEMENT%20ON%20ETHICAL.pdf).

1.6 UNISA espouses the constitutional values of human dignity, equality, social justice and fairness.

1.7 UNISA promotes the harmonisation of the internationally recognised Belmont Report moral principles of autonomy, beneficence, non-maleficence and justice within research practice.

1.8 UNISA endorses the Global Code of Conduct for Research in Resource-poor settings that promotes principles of fairness, cultural sensitivity, care, and honesty in terms of collaborative research.

1.9 Unisa subscribes to the San Code of Research Ethics, recognising our heritage through the values of respect, honesty, justice and fairness, care and process.

1.10 UNISA abides by the South African National Standards Document (SANAS) where

animal research is concerned.

1.10. This policy should be read in conjunction with other relevant legislative frameworks, relevant UNISA guidelines, policies and procedures.

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1 UNISA endorses the internationally accepted Singapore Statement on Research Integrity. http://www.sigaporestatement.org/)

2. DEFINITIONS AND ABBREVIATIONS

Academic freedom:	is the recognition of academics' right to freedom of investigation, thought, expression, publication and dissemination of results, free of institutional intolerance and of internal or external coercion.
Academic dishonesty:	is the conduct or omission in any academic endeavour that violates the values associated with academic integrity; and includes any act that is designed to give an unfair or undeserved academic advantage. It includes cheating, plagiarism, falsification, fabrication and violation of research ethics.
Academic integrity:	is honest, fair and responsible research and tuition associated with honesty, truth, equity, respect, responsibility and accountability.
Academic outputs:	refer to all works created by employees and students for tuition and/or research purposes.
Afro-global perspective:	Harmonisation of African beliefs, customs, values and social life systems as an integral part of research without disregarding globally accepted research ethics frameworks.
Collaborative research:	is research that involves the cooperation of researchers from different academic institutions, organisations and/or communities.
Conceptual research:	is a methodology wherein research is conducted by analysing material on a given topic already present in the public domain. Conceptual research does not involve conducting any experiments, interviews or surveys. It relates to the use of literature, theories, concepts or ideas.
Copyright:	is the specific intellectual property right which an author acquires in accordance with the Copyright Act 98 of 1978 ("the Act") in respect of a protected work.
Curation:	is the selection, preservation, maintenance, collection and archiving of research data and artefacts.
Ethics review:	is an objective appraisal of the effect of the proposed research on the wellbeing of potential participants, animals, the environment, researchers, institutions, collectivises and communities by an established Ethics Review Committee.
ERC/REC:	means the Ethics Review Committee (synonymous with Research Ethics Committee) that is representing a specific UNISA business unit or College, either on unit or departmental level.
Department:	is an operational unit
Gatekeepers:	are persons who, by the right of their position of authority, are recognised as a channel of access to a research site, participants, funders or sponsors.
Health research:	includes any research that contributes to knowledge of:

- biological, clinical, psychological, or social processes in humans
- improved methods for the provision of health services
- human pathology
- the causes of disease
- effects of the environment on the human body
- development of new applications of pharmaceuticals, medicines and related substances

the development of new applications of health technologies to improve health and health care[2.]

Human participant:	is a living person about whom a researcher obtains data by intervening or interacting with the person or by using her/his identifiable information. However, this definition may be extended for this policy to protect the rights of deceased persons[3].
Indigenous knowledge:	is local knowledge that originated in a culture or society.
Intellectual property:	is a patentable invention or any copyrightable subject matter such as a trademark, a design or a traditional work, as defined in the Intellectual Property Amendment Act of 2010, and a trade secret or knowledge of how to do something.
Integrity:	is fundamental to all forms of scientific research and is anchored in the values of "truth" and "honesty". Trust by peers and the public in the truth of research is exemplified by the responsible conduct of researchers, trust in their competence and trust in their devotion to do research according to internationally acceptable ethical norms and values.
Interdisciplinary:	means drawing from, relating to, or involving two or more fields of study which are usually considered distinct, resulting in an integration of concepts in a coherent synthesis that crosses disciplinary boundaries.
Moral capital:	means required or expected knowledge, skills, attitudes and consciousness in research ethics.
Non-therapeutic research:	is research that benefits people other than the research participant. The acquisition of knowledge may be of no immediate benefit to the participant, but he/she may unexpectedly become a direct or indirect beneficiary of such research.
Principal researcher:	is the person responsible for the ethical and scientific integrity of a research study, specifically a leader of a team of researchers, or a master's and doctoral student.
Public domain:	the state of belonging or being available to the public, especially through not being subject to copyright or other legal restrictions; if data in the public domain are used for research purposes, research ethics principles must still be considered.
Research:	means a systematic investigation aimed at the development of or contribution to generalisable or transferable knowledge.

Researcher:	(a) is a permanently appointed UNISA employee and an employee on a contract of less than three years who has been tasked with conducting research; as well as a valid, current Academic Associate (excluding an Emeritus Professor) and a postdoctoral fellow. (b) is a registered UNISA student conducting research for postgraduate degree purposes.
Research ethics:	governs the standards of conduct for scientific researchers. It is important to adhere to ethical principles in order to protect the dignity, rights and welfare of human and animal research participants with due regard to the environment.
Secondary research:	is a research method involving the collation and/or synthesis of already existing material not collected for the current study, either in the public or private domain. Primary research generates data, while secondary research uses primary data sources as a source of data for analysis.
Therapeutic research:	means research that benefits the individual research participants by treating or curing their condition.
Vulnerable participants:	include children (those individuals under the age of 18 years), the elderly, pregnant women, people with a cognitive or mental impairment, prisoners or people on parole, students, people living with HIV/AIDS, people in dependent relationships, persons with disabilities, socio-economically disadvantaged people, indigenous people and indigents.
URERC:	means the UNISA Research Ethics Review Committee.

2 Definition according to the National Health Act, 61 of 2003 (p.6/7)
3 Definition according to the Department of Health, Government Gazette, No. 38000 (2014:5)

3. PURPOSE

3.1 The UNISA Policy on Research Ethics aims to ensure that:

3.1.1 an ethical and scientific intellectual culture prevails among the University's employees and students and is followed in research practice.

3.1.2 the rights and interests of human participants, institutions communities, animals and the environment are protected. This is particularly important where the information that has been gathered has the potential to invade the privacy and dignity of participants and third parties; and where participants and third parties are vulnerable owing to their youth, disability, gender, age, poverty, disease, ignorance or powerlessness.

3.1.3 all research activities are conducted with scholarly integrity, excellence, social responsibility and ethical behaviour.

3.1.4 the ethical and scientific soundness of research is not compromised.

3.2 The Policy on Research Ethics is not intended to restrict or discourage research at UNISA. On the contrary, this policy aims to:

3.2.1 inform the researcher of his/her responsibilities in conducting ethical research

3.2.2 inform supervisors of their role in guiding their students in conducting ethical research

3.2.3 understand and promote adherence to all applicable procedures

3.2.3 protect the rights of all stakeholders.

4 SCOPE

The definition of research is based on several important principles.

4.1 Research is at the most basic level a human activity. This implies that research is never value-neutral or mechanistic. Researchers have preconceptions determined by social, political, cultural and gender influences. These preconceptions influence their theories and findings.

4.2 Research is a communal activity. Researchers work as part of a national and international community of scholars. This community has an impact on the paradigms within which research is undertaken in and across certain disciplines and/or subjects.

4.3 Acceptable research may be multi, inter and trans-disciplinary, discipline, field and subject-specific.

4.4 Research is theory-dependent. Research is informed by the dominant theories within certain fields and theories which, in turn, are influenced by the paradigms referred to above.

4.5 The purpose of research is the study of natural, social and metaphysical phenomena in order to improve our understanding of how the world functions as well as to deal with its needs.

4.6 Research involves creative, innovative, systematic and original work that explains phenomena. In addition, research embraces the critical evaluation of such phenomena in the natural and social sciences.

4.7 Research includes among others, but is not limited to, basic, applied, strategic and reflexive research.

5 RIGHTS AND RESPONSIBILITIES OF UNISA IN ENABLING ETHICAL RESEARCH

5.1 UNISA should promote the compliance with the Policy on Research Ethics and take appropriate steps when this policy is breached.

5.2 UNISA has the right to monitor research that has been approved by any of its Ethics Review Committees and to require submission of regular reports or other information.

on the research. The University may impose disciplinary measures or stop research when ethical principles are violated; or the integrity of the University is jeopardised.

5.3 As a rule, all intellectual property resulting from research conducted with UNISA funds or use of its facilities, vests in the University, in accordance with UNISA's Intellectual Property Policy.

5.4 Ethics approval will not be granted retrospectively.

5.5 Human research involving interaction with or observation of human participants; information linked to human participants; research involving groups of individuals, communities or collectives must have ethics approval from the relevant Research Ethics Review Committee before it may commence.

5.6 Animal, plant, molecular and cell research conducted by UNISA employees and students must have ethics approval from the relevant Research Ethics Review Committee before it may commence.

5.7 Health and animal research conducted by UNISA employees and students should receive ethics approval from a Research Ethics Review Committee which is registered with the National Health Research Ethics Council to comply with section 73 of the National Health Act 61 of 2003.

5.8 Honours' research projects should receive ethics approval from an Ethics Review Committee, either in the form of Class Approval or as individual projects[1].

5.9 The following research is exempted from full review by a Research Ethics Review Committee:

- research that relies exclusively on reviewing materials available in the public domain and/or information accessible through legislation or regulation
- research that relies exclusively on the secondary use of anonymous information; or anonymous human biological material, except for the review of archived materials that are confidential; research of closed media sources and research involving the analysis of institutional statistics pertaining to employees, students, service providers and users.

5.10 Duly authorised routine data-gathering activities which are necessary for efficient administration and operations at UNISA, standard educational practices and programme evaluation activities do not constitute research and do not need to undergo formal ethics review. However, if publication of such studies is desirable, it is prudent to obtain ethics approval before the study begins.

[1] Refer to the Guidelines for Class Approval

5.11 UNISA is accountable only for research which has been conducted in accordance with the Unisa Policy on Research Ethics.

5.12 A register is maintained of all research that has been given ethics approval.

6 RIGHTS AND RESPONSIBILITIES OF RESEARCHERS AT UNISA

6.1 Researchers have the fundamental right to academic freedom and freedom of scientific research.

6.2 Integrity in research

6.2.1 It is the responsibility of the researcher to ensure that he or she conducts a thorough risk-benefit assessment and takes responsibility for addressing anticipated ethical issues in the research proposal.

6.2.2 It is the responsibility of the researcher to ensure that he or she does not undertake research without ethics approval.

6.2.3 Researchers must be suitably qualified and technically competent to carry out the proposed research.

6.2.4 Researchers must engage in ongoing Professional Research Ethics Capacity Development.

6.2.5 Researchers conducting health research should produce evidence of appropriate research ethics training within the previous three years (see DOH, Ethics in Health Research, 2015, section 2.3.8)

6.2.6 Researchers should be accountable by acting in a responsible manner and strive to achieve the highest possible level of excellence, integrity and scientific quality in their research.

6.2.7 Researchers have a right, as well as an obligation to refrain from undertaking or continuing any research that contravenes the Policy on Research Ethics; violates the integrity and/or validity of research and/or compromises their autonomy in research. If they feel that the policy or ethical principles are being violated or that the study is unethical, they must make all possible efforts either to correct or terminate the research. These would include reporting it to the relevant Research Ethics Review Committee. In the event of failure of remedial measures, they must terminate the study or end their involvement in it.

6.2.7 Researchers should only undertake research that will contribute to knowledge on the subject and should use resources judiciously to avoid the unnecessary duplication of research.

6.2.8 Researchers have a right and a duty to make all necessary efforts to bring the research and its findings or results to the public domain, using appropriate and acceptable forums at an appropriate time. Research findings should be published in a manner that will not harm research participants or their communities.

6.2.9 Researchers who undertake secret or classified research must comply with all UNISA policies, other relevant policies and legislative frameworks.

6.2.10 Researchers have a responsibility towards those involved in or affected by their work. They should make reasonable efforts to anticipate and guard against the possibility of their research having undesirable or harmful consequences. They should take reasonable corrective steps when they come across misuse or misrepresentation of their research. They must be prepared to take responsibility and to be held accountable for all aspects and consequences of their research activities.

6.2.11 Researchers should be honest in respect of their own actions in research and in their responses to the actions of other researchers. This applies to the whole range of research including generating and analysing data, publishing results and acknowledging the direct and indirect contributions of colleagues, collaborators and others.

6.2.12 Researchers may not commit plagiarism, piracy, falsification or the fabrication of results at any stage of the research since it is regarded as serious offences. The research findings should be reported accurately and truthfully, and historical records and study material should be preserved and protected. Research misconduct will be dealt with in accordance with the Policy on Academic Integrity.

6.2.13 Researchers may be required to report regularly to the relevant Research Ethics Review Committee. Any researcher who experiences unexpected adverse events or changes in the research design should inform this committee.

6.2.14 Researchers should adhere to relevant requirements arising in respect of data curatorship and data management. Whereas the first-mentioned refers to the collection, validation and preservation of data for various purposes, the last-mentioned refers to a broad range of data applications such as data design, re-use, storage and security.

6.2.15 In the event of a researcher contravening the Policy on Research Ethics, it will be investigated by the relevant Ethics Review Committee and the findings reported to UNISA and the research sponsor.

6.3 Relationship among researchers

6.3.1 Principal researchers and/or academic supervisors are responsible for overseeing the ethical conduct of research by junior researchers, members of a research team, assistants, students and trainees under their supervision.

6.3.2 Supervisors must be suitably qualified to provide the necessary guidance to students.

6.3.3 Supervisors must ensure that their students elaborate on ethical considerations in the research proposal before ethics approval is sought.

6.3.4 Supervisors guiding students conducting health research should produce evidence of appropriate research ethics training within the previous three years (see DOH, Ethics in Health Research 2015, section 2.3.8).

6.3.5 Junior researchers, assistants, students and trainees have a responsibility of acting ethically and observing the Policy on Research Ethics.

6.3.6 Junior researchers, assistants, students and trainees have a right to receive,

and principal researchers, academic supervisors and academic departments have a responsibility to provide appropriate training and guidance on all aspects of research, including ethical conduct.

6.3.7 The principal researchers should delegate to juniors, assistants, students and trainees only those responsibilities that they are reasonably capable of performing based on their education, training or experience, either independently or under supervision.

6.3.8 Researchers should not engage in discriminatory, harmful or exploitative practices, coercion or harassment in the research process. They should not impose their views or beliefs on or try to seek personal, sexual or economic gain from anybody including other researchers, juniors, assistants, trainees or students.

6.3.8 Researchers should not deceive or coerce other researchers including employees, juniors, assistants, trainees and students into serving as research participants. Employees or students, either as research participants or research assistants, have the right to end involvement in the research without having to face adverse consequences.

6.3.9 Students working on research as a tuition requirement should not be exploited by advisors or mentors and be adequately acknowledged for their contribution.

6.3.9 In addition to researchers and students, other individuals, such as administrative employees of UNISA who may have access to data or identifying information, as well as private organisations that are contracted to handle research data should be briefed on ethical issues and the Policy on Research Ethics, including the participants' right to privacy and confidentiality.

6.4 Data sharing

6.4.1 Unisa recognises the importance of open access to science and research. Researchers should ensure the protection of the interests of co-researchers and participants, including the participants' right to privacy and confidentiality, when sharing data or making it public in any form.

6.4.2 Data may be commonly shared when it has been prepared for sharing in such a way that ethical principles and legal stipulations will not be violated. It may be shared even before publication of the study, among researchers and peer reviewers, if necessary; and it may be made available to the public.

6.4.3 Researchers either fully or partially funded by the National Research Foundation should deposit the data supporting publication(s) in an accredited open access repository with the provision of a digital object identifier for future citation and referencing. The Unisa Library hosts the Open Access repository and all NRF-funded researchers should use this facility to deposit de-identified data for which prior informed consent was obtained. However, this option is available to all other researchers that require a trusted repository.

6.4.4 Participants should have a choice if they consent to data sharing or not; as well as the type of data to be shared and who could have access to the data.

6.4.5 During the conceptualisation of the research researchers should already consider the issue of data sharing and build in mechanisms in the research proposal, such as data management plans, to protect the rights of the

participants and accommodate data sharing. If the data is of a sensitive nature the researcher should be able to choose a more limited form of data sharing.

6.4.6 As far as possible, and if required by the design of the research, researchers should ensure that relevant findings of the research are taken back to the research participants, institutions or communities in a form and manner that they can understand, and which will not cause harm.

6.5 Reporting and publication of research

6.5.1 Scientific knowledge is advanced by reporting research findings. Researchers who conduct the study have the right and the duty to publish research findings in scientific journals, books and/or other media. When they agree to delegate this responsibility to other individual(s) or organisation(s), they should do so only if they have received a mutually agreed commitment to publish or disseminate the results within an agreed period with an agreed content and in an agreed manner and with due recognition of the relevant researchers and UNISA as institution.

6.5.2 The publishing of research findings should be done in a manner that will not harm research participants or their communities.

6.5.3 Where there is a conflict between the advancement of scientific knowledge and the protection of intellectual property (by way of patents) researchers should endeavour to explain the importance of publishing research to the inventor once the provisional application has been filed.

6.5.4 If a client/sponsor/funder requires non-publication of research results or requires giving prior approval for the manner and content of reporting, such research proposal may be rejected by the relevant Ethics Review Committee. If the request not to publish is based on strategic or other reasonable grounds, the Committee may consider non-publication of results for no more than one year following the completion of research. Input from the relevant college/institute/centre should be sought where there is a request not to publish.

6.5.5 Research results should be reported, irrespective of whether they support or contradict the expected outcome(s).

6.5.6 Researchers should disclose in their publications the source(s) of funding and sponsors, if any, unless there is a compelling reason not to do so.

6.5.7 Researchers should explain the methodology used in their publications and how any ethical dilemmas they encountered were resolved.

6.5.8 The following guidelines should be followed for giving authorship credit while reporting the research in any form:

a) Authorship, and its sequence in case of more than one author, should be based on the quantum of contribution made in terms of ideas, conceptualisation and actual performance of the research, analysis and writing of the report or any publication based on the research. Authorship and its sequence should not be based on the status of the individual in the institution or elsewhere.

b) A contributor must assist in drafting the work or revising it critically for important intellectual content.

c) A contributor must give final approval of the version to be published.

d) A contributor must agree to be accountable for all aspects of the work, including the accuracy and academic integrity of the work and the integrity of the contributions of co-authors.

e) All other individuals not meeting the criteria for authorship, such as communities or community members in the case of community engaged research, but whose contribution made the conduct and completion of research or publication possible should be properly acknowledged.

f) A student should be listed as principal or first author on any multiple-authored publication that substantially derives from the student's dissertation or thesis.

g) When data or information from other studies or publications is quoted or included, appropriate credit should be given.

6.5.9 When results are disseminated through the popular media, researchers should endeavour to ensure that media people comprehend the limitations and implications of research results and that distortions and misrepresentations in media reporting are minimised.

6.6 Peer review

6.6.1 Sound methodology and scientific validity are the entry points of ethical research. Engaging in research that has fundamental flaws in design and methodology is a waste of human, monetary and other resources. Apart from ethical review, peer (scientific) review is an essential part of research. The purpose of peer review is to improve and advance research and facilitate observance of ethics. Researchers should be encouraged to subject their own work to such a process.

6.6.2 Researchers should be encouraged to make themselves available as peer reviewers for research in the fields in which they have adequate knowledge and expertise.

6.6.3 Peer reviewers should be aware of the ethical aspects of research and publication. They must act objectively, impartially and constructively.

6.6.4 If peer reviewers have any actual or potential conflicts of personal or professional interest with the research under review that could jeopardise their ability to undertake the review in a scientific and ethical manner, they should either disclose the conflict of interest or decline to review the work concerned. In such situations their decision should be based on the type and severity of the conflict of interest.

6.6.5 When scientific misconduct or violation of ethics is discovered, the peer reviewer should take appropriate steps to report it to the relevant Ethics Review Committee.

7 NATIONAL AND INTERNATIONAL COLLABORATIVE RESEARCH

7.1 The University supports and encourages research collaboration and endorses the

Montreal Statement on Research Integrity in Cross-boundary Research Collaborations[2].

7.2 In national and international collaborative research, the parties are host institutions, collaborating institutions, researchers from both institutions, research participants and/or communities.

7.3 There should be clear justification for the need and benefit of collaborative research.

7.4 If research is conducted in a foreign country, the relevant standards, set out in the UNISA Research Ethics Policy and relevant legislative frameworks, will take precedence and will apply.

7.5 Research involving human participants must not commence without ethics approval by the Research Ethics Review Committees of all collaborating institutions. This requirement may be waivered by the relevant Unisa Unit/College Research Ethics Review Committee if the local host institution's RERC is registered with the National Research Ethics Review Council; or the national host institution adheres to minimum research ethics standards comparative to those set out in the Unisa Policy on Research Ethics.

7.6 Research cannot commence without informed consent from participants and/or communities.

7.7 There may be no exploitation of institutions, researchers, research participants or communities.

7.8 Institutions and researchers should assist indigenous communities and traditional societies in protecting their knowledge and resources and should respect that which is traditionally sacred and secret.

7.9 Researchers involved in international collaborative research should have some understanding of, and be sensitive to, the social, economic and political conditions in which the research is carried out. This will alert them to the need to protect research participants who are, for example, subject to deprivations through poverty.

7.10 The relevant data protection requirements of jurisdictions that has data protection laws, such as the European Union, should be considered for processing the personal information of researchers and participants; and requirements should be included in the collaborative agreements.

7.11 Sharing personal information across borders to other researchers in other countries must meet the requirements of trans-border information flows of the Protection of Personal Information Act 4 of 2013 to substantially uphold similar conditions for lawful processing or consent.

7.12 Researchers have a responsibility of ensuring that a clear understanding of respective roles and responsibilities is developed at the beginning of the research collaboration and a duty to adequately fulfil their respective research obligations. Researchers should formalise their research collaborations with a 'Memorandum of Understanding' at the initiation of the collaboration.

7.13 The memorandum of understanding must as far as practically possible be reached between the host research institution and the collaborating institution on all aspects and the benefits that may accrue from the study. These include the ownership of intellectual property; management of the research process; data management; the fate of data and

[2] Montreal Statement on Research Integrity in Cross-boundary Research Collaborations (2013). Retrieved from https://wcrif.org/montreal-statement/file

research specimens; divisions of responsibilities; finances; research output; publication strategy; sharing burdens and benefits; development of infrastructure and research capacity in the host country or institution and an ombudsman to settle disputes.

7.14 The intellectual property rights of parties should be respected and acknowledged before the research commences.

8 RIGHTS AND RESPONSIBILITIES OF FUNDERS, CLIENTS AND SPONSORS

8.1 Researchers should ensure that they have an explicit written research mandate from the client/sponsor/funder in which the conditions, scope and terms of the research are set out clearly (research problem, expected deliverables, financial commitments and time frames).

8.2 The acceptance of a mandate should be sealed by a legally binding, written contract between the parties. This contract should specify the terms agreed on, including the rights and obligations of the parties involved and the ownership of intellectual property rights and benefits.

8.3 The position about the dissemination and publication of findings from the research study should be clarified.

8.4 Researchers should recognise the right of the client/sponsor/funder to request information from them at any stage during the research. However, interference that may jeopardise the scientific integrity of the study or the interests of the research participants may oblige UNISA to cancel the cooperation.

Clients/funders/sponsors should be made aware of the UNISA Policy on Research Ethics. They have the right to receive a copy of the policy and expect that the research proposal submitted for funding or sponsorship by researchers and UNISA contains the necessary information on ethical issues and complies with the policy.

8.5 Clients/funders/sponsors should respect the UNISA Policy on Research Ethics and should not expect researchers or UNISA to undertake research or conduct which is in any way contrary to the policy other related UNISA policies and/or legislative frameworks.

8.6 Where clients/sponsors/funders directly or indirectly act as gatekeepers and control access to the participants, researchers should not delegate their responsibility of obtaining separate and informed consent from participants and protect their rights to the gatekeepers.

Acknowledgements and works consulted

1. National Health Act 61 of 2003 (http://www.acts.co.za/national-health-/national health act 2003)

2. Department of Health, (2004). Regulations Relating to research with Human Participants, Government Gazette, No. 38000, 19 September 2014. (http://www.gov.za/sites/www.gov.za/files/38000 rg10268 gon719.pdf)

3. Intellectual Property Amendments Bill of 2011

4. Protection of Personal Information Act 4 of 2013

5. South African Human Sciences Research Council *Draft Code of Research Ethics* http://www.hsrc.ac.za/about/researchEthics/draftCode.html)

6. Stellenbosch University Policy for Responsible Research Conduct at the University of Stellenbosch, 2013 (http://www.sun.ac.za/research/assets/files/Integrity_and_Ethics/SU%20Research%20Ethics%20policy%20approved%20by%20Council_24%20June%202013.pdf)

7. South African Medical Research Council *Guidelines on Ethics for Medical Research: General Principles (Book 1)* (2002)

8. University of Pretoria Code of Ethics for Research (www.ais.up.ac.za/research/docs/code_ethics.pdf)

9. University of Kwazulu-Natal Research Policy V (http://research.ukzn.ac.za/research-ethics/Overview.aspx)

10. University of South Africa. Policy on Academic Integrity, 2017.

PART 2

GUIDELINES FOR RESEARCH INVOLVING HUMAN PARTICIPANTS

1. BASIC PRINCIPLES FOR RESEARCH

1.1 Moral principles

UNISA promotes the following four internationally recognised moral principles of ethics as bases for research:

- autonomy (research should respect the autonomy, rights and dignity of research participants)
- beneficence (research should make a positive contribution towards the welfare of people)
- non-maleficence (research should not cause harm to the research participant(s) or to people in general)
- justice (the benefits and risks of research should be fairly distributed among people)

These principles are not ranked in any order of preference. In disputes a balance between the four principles should be pursued.

1.2 General ethics principles

In addition to, and expanding on, the above moral principles, researchers should adhere to ten general ethics principles: Again, the ethics principles may not resolve all ethical problems and dilemmas which confront researchers. Researchers may be required to balance the demands made by moral principles of research and to privilege one principle over another, depending on the context and circumstances of the research involved.

1.2.1 Essentiality and relevance

Before undertaking research existing literature on the subject or the issue under study and to all available alternatives should be adequately considered. In view of the scarcity of resources in South Africa, it should be clearly demonstrated that the research is in pursuit of knowledge and/or the public good.

1.2.2 Maximisation of public interest and of social justice

Research should be conducted to the benefit of society and the environment with the motive of maximising public interest and social justice. All efforts should be made public in an appropriate manner and form at an appropriate time– information on the research undertaken as well as the results and implications of the completed research.

1.2.3 Competence, ability and commitment to research

Researchers should be personally and/or professionally qualified for the research that they undertake. A commitment to research in general and to the relevant subject in particular is an essential prerequisite for good and

ethical research.

1.2.4 Respect for and protection of the rights and interests of participants and institutions

Researchers should respect and protect the dignity, privacy and confidentiality[4] of participants and institutions, where relevant. Researchers should ensure that the personal information of participants is only used for the agreed research purposes with the participants and that it is adequately protected to prevent possible loss, damage and/or unauthorised access, as required by Protection of Personal Information (POPI) Act 4 of 2013. They should never expose such participants and institutions to procedures or risks not directly attached to the research project or its methodology. Research and the pursuit of knowledge should not, in itself be regarded as the supreme goal at the expense of the rights of participants and institutions.

1.2.5 Informed and non-coerced consent

Autonomy requires that individuals' participation should be freely given, based on informed consent and for a specific purpose, as required by the POPI Act. Direct or indirect coercion as well as undue inducement of people in the name of research should be avoided. These act as barriers to autonomous decision-making and may result in people consenting against their better judgment to participate in studies that may involve risks.

1.2.6 Respect for cultural differences

Researchers should treat research participants as unique human beings within the context of their community systems and should respect what could be traditionally sacred and secret. Research should preferably be undertaken with the members of an identified community or communities rather than merely about such community(ies). In some situations, the consent of "gatekeepers" may have to be obtained in addition to that of research participants.

1.2.7 Justice, fairness and objectivity

Criteria for the selection of research participants should be fair and scientific. Easily accessible individuals or groups should not be inordinately burdened with repeated demands on their time and knowledge by the researcher.

1.2.8 Integrity, transparency and accountability

The conduct of research should be honest, fair and transparent. Researchers should be honest about their own limitations, competence, belief systems, values and needs. The contribution of other researchers or members of the research team should be properly acknowledged. Researchers should not abuse their positions or knowledge for personal power or gain.

1.2.9 Risk minimisation

Researchers should ensure that the actual benefits to be derived by the

[4] That is, the nondisclosure of personal information (e.g. direct quotations or identifiable images) to others. Participants may consent to disclosure, preferably in writing.

participants or society generally from the research clearly outweigh any possible risks and that participants, researchers and the environment are subjected only to those risks that are clearly necessary for conducting the research. Researchers should ensure that these risks are assessed and that adequate precautions are taken to minimise and mitigate risk in line with the UNISA Research Ethics Risk Assessment Standard Operating Procedure.

1.2.10 Non-exploitation

There should be no exploitation of research participants, researchers (including students and junior members), communities, institutions or vulnerable people. The researchers should ensure that processing the participants' personal information is done in line with the requirements of the POPI Act 4 of 2013 and that the information is not used for unlawful and secondary purposes incompatible with the original purpose consented by participants. There should be benefits to the community in which research is conducted. As far as possible, feedback should be given to participants and other relevant stakeholders. When research is carried out with communities they must receive feedback on the results of the research.

2. RELATIONSHIP BETWEEN RESEARCHERS AND PARTICIPANTS

2.1 Participants should be indispensable and worthy partners in research. Researchers should respect and protect the rights and interests of participants at every stage and level of research and acknowledge their contribution.

2.2 Demographic information should not be used in research to discriminate or cause loss of social standing for participants[3].

2.3 The risks and benefits of the research to the prospective participants should be fully weighed and the participants must be informed thereof. Research that could lead to unnecessary physical, social and/or psychological, or health and safety harm in the short of long term should not be undertaken. Researchers should identify potential risks to participants which could also be related to health and safety risks and make provision to avoid such risks. When risks form part of the conduct of the study, efforts should be made to mitigate the risks and protect the participants, environment and researchers.

2.4 All steps should be taken to prevent harm (physical, psychological and/or spiritual, health of safety) injury or loss of opportunity to participants, researchers and the environment. In the event of harm, injury or loss of opportunity , it should be dealt with in accordance with the relevant policy and/or legislative frameworks.

2.5 If it becomes evident that a participant, a researcher or the environment has suffered harm in a way not foreseen by the researcher during the research, this should immediately be reported to the University ERC and the relevant unit ERC for immediate investigation and action. Such action may, for example, include the need to refer the participant for counselling.

2.6 The criteria for selecting research participants should be fair.

2.7 A mutually beneficial agreement should be in place if a community or research setting is used as a continuous and long-term resource for collecting data to be used for curricular research or training.

[3] Constitution of the Republic of South Africa, 1996 Act 108 of 1996
Chapter 2 Bill of Rights, section 9(3) p6

2.8 The relevant social, cultural and historical background of participants should be considered when the planning and conducting research.

2.9 Researchers should not infringe the autonomy of participants by resorting to coercion, undue influence or the promise of unrealistic benefits.

2.10 Coercion may include taking undue advantage of individuals or abusing their participation in the research.

2.11 Inducement may include a promise of material or financial gain, services or opportunities. Researchers and Research Ethics Review Committees should carefully consider the appropriateness of proposed financial or other inducements to research participants, whether children or adults, parents or guardians of children or community gatekeepers.

2.12 Reimbursement of expenses (transport costs, meals); compensation for the time or effort expended or any opportunity that may be lost is allowed, on condition that all participants are offered similar reimbursement and that such reimbursement is only aimed at recompensing the participants (Refer to part 5 of the Policy, Guidelines for the use of inducements in human participant research).

2.13 Participants should be informed of the existence of the UNISA Policy on Research Ethics and given details of the Ethics Review Committee. The policy should be made available to them if it can help them make an informed decision regarding their participation. Researchers may not instruct participants to participate in research under conditions that can be burdensome, abusive or threatening or that have the potential to risk or abuse the researcher's position. Unfairness or anything that prevents the participant from freely terminating his/her participation is not permissible; nor should there be any negative implications should the participant choose to do so.

2.14 Researchers must acknowledge, declare and indicate how they will mitigate real or perceived conflicts of interest.

3. INFORMED CONSEN;T

3.1 The participation of individuals should be based on their freely given, specific and informed consent. Researchers should respect their right to refuse to participate in aspects of the research at any stage or to decide to withdraw their previous given consent without demanding reasons or imposing penalties.

3.2 Participants should give their consent in writing preferably accompanied by their signature. They, in turn, should be given written information including adequate details of the research and any risks associated with the study. If participants refuse to provide written consent it may be recorded verbally, provided that verbal consent can be linked to the individual providing such verbal consent. For example, where a participant is illiterate, consent should be obtained in the presence of a literate witness who should verify and sign a document stating that informed consent had been given. Where the research is done on-line or electronically, informed consent can be obtained electronically but, in a format, separate from the on-line research to protect the identity of the participant (Refer to part 6 of the policy for guidance on online research).

3.3 The research participant should be made aware of the aspects required by the Protection of Personal Information Act 4 of 2013 for the openness principle when personal information of research participants is collected.

3.4 Participants must be informed and must provide consent for data sharing or future use of the data for projects with a similar purpose, if applicable. Reconsent must be obtained for the future use of stored data for which participants did not grant consent.

3.5 Consent for participation in research is freely given and informed if

3.5.1 it is given without any direct/indirect coercion or inducement

3.5.2 prospective participants have been informed of the purpose and processing of the intended research

3.5.3 prospective participants have understood this information and have indicated so as per paragraph 3.2

3.5.4 the researcher has answered any question(s) about the research and their participation

3.5.5 it is given before research commences.

3.6 Non-disclosure of all information

3.6.1 In some situations the methodology or practicalities of a research project may necessitate the concealment of information. This may be due to the possibility that behaviour changes may result or responses be affected when such details are revealed to participants. In such a case, the researcher should determine beforehand.

(a) whether the use of such a methodology is justified by its potential scientific, educational or applied benefits

(b) whether alternative procedures which do not require the concealment of information should rather be used

3.6.2 If the use of such methodology is deemed justified by the researcher, there are steps which he/she should take:

3.6.2.1 When obtaining informed consent, a detailed justification for not revealing all necessary information should be provided in the research proposal and methodology. This justification should be subject to scientific and ethics approval by the relevant Ethics Review Committee. Only after the committee has given its approval should such research be undertaken.

3.6.2.2. The participants' right to privacy, anonymity and confidentiality gains additional importance in such cases as they do not know the real purpose or objectives for which they are providing information.

3.6.2.3. Even if the scientific and ethical reviews allow that some information about the study need not be revealed, participants should be provided with all other information. In no case, however, should researchers withhold information on risks, discomfort, unpleasant emotional experiences or any such aspect that would be material in making the decision to participate.

3.6.2.4 Participants should be given the reasons for not providing detailed information as soon as is possible on completion of the research. Where needed, services such as counselling and referral should be offered.

3.7 Consent where gatekeepers or organisational structures are involved

3.7.1 It is the responsibility of the primary researcher to ensure compliance with the research policy/directives of gatekeepers or organisational structures.

3.7.2 In some situations there may be a need to obtain permission from the "gatekeeper" to access the participants, information and/or research sites.

3.7.3 For research involving Unisa employees, students or data, permission must be obtained from the Unisa Research Permission Committee.

3.7.4 Care should be taken in the following situations:

3.7.4.1 Permission obtained from the gatekeeper may not be substituted for the need to obtain separate and informed consent from the participants. The rights of participants in such an instance are the same as in all other instances.

3.7.4.2 In the instance of research or data collection, care should be taken to ensure that the relationship between the gatekeeper and the participants is not jeopardised.

3.8 **Vulnerable participants**

3.8.1 Researchers should take care of the rights and interests of vulnerable participants.

3.8.2 Research results that can be obtained if carried out on adults should never be carried out on children. Children should participate only when their participation is indispensable to the research. The protection and best interests of children are of prime importance.

3.8.3 Therapeutic research or experimentation on a child under the age of 18 years may be conducted only if it is in the best interests of the child; and if the assent of the child (if he or she is capable of understanding) and the consent of his or her parent or guardian has been obtained.

3.8.4 Non-therapeutic research or experimentation may only be conducted on a child under the age of 18 years with the consent of the following persons: The Minister responsible for social development; an Ethics Review Committee registered with the NHREC; the parent or guardian of the child and the child if he or she is capable of understanding.

3.9 Where research involves the participation of persons unfamiliar with the language in which the research should be conducted, the principle researcher must ensure that:

3.9.1 the participant's information statement has been translated into his/her home language

3.9.2 it is his/her responsibility to ensure that the participant understands the information statement.

3.9.3 an interpreter is present during discussions with the participants about the project. As a rule, the interpreter should be independent, but when the research proposal is of minimal risk, a relative or friend who speaks the home language of the participant may be acceptable.

4. PRIVACY, ANONYMITY AND CONFIDENTIALITY

4.1 All research participants have the right to privacy to the extent permitted by law or as directed by legal frameworks.

4.2 Personal information should be collected and processed in adherence to the Protection of Personal Information Act 4 of 2013.

4.3 Privacy includes autonomy over personal information, anonymity and confidentiality, especially if the research deals with stigmatising, sensitive or potentially damaging issues or information. When deciding on what information should be regarded as private and confidential, the perspective of the participant(s) on the matter should be respected.

4.4 Personal information may only be collected for a specific, explicit and lawful research purpose.

4.5 Only adequate, relevant and limited personal information may be collected on research participants.

4.6 The researchers must take reasonably practical steps to ensure that the research

participant information is complete, accurate, not misleading and updated, where necessary.

4.7 All personal information and records provided by participants should remain confidential throughout the information processing life cycle including sharing with third parties and destruction. It should be made clear during data collection that confidentiality and anonymity will be safeguarded unless waived by the research participant. Whenever it is methodologically feasible, participants should be allowed to respond anonymously or under a pseudonym to protect their identity and privacy.

4.8 All personal information obtained directly or indirectly on or about the participants (names obtained by researchers from hospital and school records) as well as information obtained during research which may reveal the identity of participants, should remain confidential and anonymous. This guarantee should also be given when researchers ask consent to use data which is not already available within the public domain (classified data on prisoners held by the Department of Correctional Services).

4.9 The Request for Information under the Promotion of Access to Information Act 2 of 2000 should be followed if a research participant requests access to the records of personal information processed by Unisa for research purposes. The request must be submitted to Legal Services.

4.10 In the case of observation (of a public scene) steps should be taken to ensure that the information will not be used or published in a form in which the individuals could be identified.

4.11 Researchers should maintain privacy, anonymity and confidentiality of information in collecting, creating, storing, accessing, transferring and disposing of personal records and data under their control, whether these are written, automated or recorded in any other medium, including computer equipment, graphs, drawings, photographs, films or other devices in which visual images are embodied.

4.12 Researchers should preserve research records for a minimum of 15 years (or as required by policy or legal frameworks) on submission of the report or the results.

4.13 Researchers should take reasonable technical and operational steps to ensure that research records are stored in such a manner as to protect confidentiality of records and the anonymity of participants.

4.14 Codes or other identifiers should, where possible, be used to break obvious connections between data and individuals/organisations/institutions. Where there is a mixture of information obtained from the public domain with the participants' informed consent, there should be no traceable link between the two sets of information.

4.15 The confidentiality and anonymity of participants and their localities should be maintained when reporting to clients/sponsors/funders. Participants should not be identified or made identifiable in the report unless there are clear reasons for doing so. If the researcher or institution needs to identify participants or communities in the report, their informed consent allowing such disclosure should be obtained, preferably in writing.

4.16 Research findings published in the public domain (theses and articles) which relate to specific participants (organisations or communities) should protect their privacy. Identifiers which could be traced back to the participants in the study should not be included. However, public interest may outweigh the right to privacy and may

require that participants be named in reports (when child labour is used by a firm).

4.17 Participants' consent should be sought where data identifying them are to be shared with individuals or organisations who are not part of the research team.

4.18 The obligation to maintain privacy, anonymity and confidentiality extends to the entire research team, other researchers at UNISA, UNISA administrative employees and all persons (inside or outside UNISA) not directly associated with the research who may possibly have access to the information.

4.19 In the event of a data breach of personal information of research participants, the notification and communication process, as outlined by Unisa's Data Privacy Policy, should be followed.

4.20 Research cannot commence without informed consent from participants and/or communities.

4.21 There may be no exploitation of institutions, researchers, research participants or communities.

4.22 Institutions and researchers should assist indigenous communities and traditional societies in protecting their knowledge and resources and should respect that which is traditionally sacred and secret.

4.23 Researchers involved in international collaborative research should have some understanding of and be sensitive to the social, economic and political conditions in which the research is carried out. This will alert them to the need to protect research participants who are, for example, subject to deprivations through poverty.

4.24 The relevant data protection requirements of the jurisdictions of the participating parties should be considered for processing personal information of researchers and participants and requirements should be included in the collaborative agreements.

Acknowledgements and works consulted

1. Belmont Report (1978) (http://www.hhs.gpv/ohrp/humansubjects/guidance/belmont.htm)

2. Intellectual Property Amendments Bill of 2010

3. Protection of Personal Information Act 4 of 2013

4. South African Human Sciences Research Council *Draft Code of Research Ethics* http://www.hsrc.ac.za/about/researchEthics/draftCode.html)

5. Stellenbosch University Framework Policy for the Assurance and Promotion of Ethically Accountable Research (http://www0.sun.ac.za/research/assets/files/Policy_Documents/Framework%20Policy_for_the_Assurance_and_promotion_of_Ethically_Accountable_Research_at_SU.doc)

6. South African Medical Research Council *Guidelines on Ethics for Medical Research: General Principles (Book 1)* (2002)

7. University of Pretoria Code of Ethics for Research (www.ais.up.ac.za/**research**/docs/**code_ethics**.pdf)

8. University of Johannesburg Research Policy and Strategy

(http://www.uj.ac.za/EN/Research/Research%20Information/Pages/ResearchPolicies.aspx)

9. University of Kwazulu-Natal Research Policy V
(http://research.ukzn.ac.za/research-ethics/Overview.aspx)

PART 3

GUIDELINES FOR ANIMAL, PLANT, MOLECULAR AND CELL RESEARCH

1. PREAMBLE

UNISA's commitment to ethical research applies to all aspects of the use and care of and the interaction with animals for research purposes in the fields of medicine, biology, agriculture, nature conservation, animal health and other disciplines in UNISA and in collaboration with other institutions. UNISA abides by the South African National Standards document (SANAS) where animal research is concerned. UNISA's commitment to ethical research also includes research on plants as well as molecular and cell research which may include research on genetically modified organisms.

2. DEFINITIONS

Animal:	means any live non-human vertebrate, such as fish, amphibians, reptiles, birds and mammals including domestic animals, purpose-bred animals, livestock, wildlife and cephalopods like octopus and squid. The definition includes eggs, foetuses, embryos and higher invertebrates, such as advanced members of the Cephalopoda and Decapoda.
Animal welfare:	refers to an animal's quality of life based on an assessment of its physical and psychological state as an indication of how the animal is coping with the ongoing situation as well as a judgment on how the animal feels.
Animal wellbeing:	refers to an animal's present state about all aspects of its internal and external environment. It implies a positive mental state; improved physiological and biological functioning; positive experiences and freedom from any adverse condition.
Death as an end-point:	is the deliberate and intended measure used to evaluate biological or chemical processes, responses or effects. In such instances the animal will not be killed humanely but death will be allowed to occur during a scientific activity.
Distress:	indicates the state of an animal which is not able to completely adapt to stress which results in abnormal physiological and/or behavioural responses. Distress can be chronic or acute and may result in pathological conditions.
Ethics:	applies to considerations whether actions are regarded as good or bad, right or wrong. Ethical considerations are applied in the evaluation of what should or should not be done when animals are proposed for use; or are used for scientific and teaching purposes.
Euthanasia:	the humane killing of an animal consistent with veterinary recommendations and practice. Euthanasia is applied when the animal's pain and distress are so acute that it is judged necessary;

Genetically modified Organism: means an organism, the genes or genetic material of which have been modified in a way that does not occur naturally through mating, a natural recombination or both. 'Genetic modification' has a corresponding meaning" (Genetically Modified Organisms Act 15 of 1997).

Humane killing: the killing an animal with minimal pain and distress.

Livestock: animals that are used in agriculture and aquaculture.

Pain: means an unpleasant sensory and/or emotional experience associated with actual or potential tissue damage. It may provoke protective actions and result in avoidance and distress and may modify behaviour.

Wildlife: refers to free-living animals of native, non-indigenous or feral species including captive-bred animals and those captured from free-living populations.

3. USING ANIMALS IN RESEARCH

3.1 General principles for the care and use of animals in research

3.1.1 All vertebrate animals are protected in South Africa by the Animal Protection Act 71 of 1962 and the use of animals for research has to adhere to this Act Therefore, these guidelines emphasise the responsibilities of researchers to

a) ensure that the use of animals is justified

b) ensure that optimal standards in terms of animal health, care and welfare are observed

c) only use animals when alternative techniques and research methods for a certain project do not exist

d) use only the number of animals absolutely required by the study

e) refine methods and procedures to minimise or avoid pain or distress in animals used in research projects.

3.1.2 The guidelines require that researchers adhere to the "3 R" principles of Replacement, Reduction and Refinement when planning and conducting research studies involving animals. An Animal Ethics Review Committee (ERC) should determine for each research project using animals whether the rules of these guidelines are adhered to before approving such projects. See paragraphs 3.4, 3.5 and 3.6 below on the "3 R" principles.

3.1.3 These guidelines apply to all live non-human vertebrates and higher-order invertebrates; that is, fish, amphibians, reptiles, birds and mammals including domestic animals, purpose-bred animals, livestock and wildlife as well as cephalopods, such as octopus and squid. Early stages of development such as embryonic, foetal and larval forms are also included. As species develop differently, the experience of pain and distress in those developmental stages varies. Decisions on the welfare of animals and their developmental stages should therefore be made for each case individually based on specific knowledge and evidence of the animal's neurobiological development.

3.1.4 Researchers must be committed to the welfare of the animals they use and must respect the contribution those animals make to research.

3.1.5 Researchers must ensure that procedures which cause hunger, thirst, injury, disease, discomfort, fear, distress, deprivation or pain to the animals involved in the studies are limited to the absolute minimum. The elimination or reduction of such conditions experienced by an animal will be achieved by applying the '3 R' principles. See paragraphs 3.4, 3.5 and 3.6 below.

3.2 Justification

3.2.1 The use of animals for research purposes must be justified by assuring that the outcomes of the studies will essentially contribute to

a) understanding humans and/or animals

b) maintaining and improving human and/or animal health or welfare

c) improving animal management or production

d) understanding, maintaining or improving the natural environment

e) ensuring that the potential benefits outweigh the potential harm to the animals used.

3.2.2 Approval for each research project involving animals must be based on considerations whether the project is justified and whether the potential benefits outweigh the potential harmful effects on the welfare of the animals being used.

3.2.3 Researchers must submit written proposals to the Animal ERC for all projects involving animals. These proposals must deal with the expected value of knowledge to be gained; justification for the project and an ethical analysis regarding the animal welfare aspects under consideration of the "3 R" principles.

3.3 Responsibilities

3.3.1 **Responsibilities of researchers**

The adherence of researchers to these guidelines will ensure a transparency which should result in the high quality ethical and scientific screening of proposals and monitoring of research studies. Researchers are responsible for all matters relating to the welfare of the animals they use. They should respect the animals and their demands and should not treat animals as mere objects. Research objectives should be subordinate to the humane treatment of animals. Researchers and teachers have direct and ultimate ethical and legal (according to Animal Protection Act) responsibility for all matters related to the welfare of the animals they use.

a) The responsibility of researchers for the welfare of animals involved in their studies begins with the design of a project and ends with the completion of the project unless unforeseen long-term negative effects result from the experiments. Researchers and teachers have direct

and ultimate ethical and legal (according to Animal Protection Act) responsibility for all matters related to the welfare of the animals they use. Under these circumstances the responsibility of the researcher continues until these issues have been dealt with satisfactorily. It is essential when invasive procedures are to be used that a veterinarian is consulted during the protocol design.

b) When applying for approval for a research project, researchers must inform the Animal ERC of any other institutions that will be participating in the project. The norm is to obtain ethics approval or a letter of approval from all the involved institutions prior to the project commencing.

c) UNISA's Animal ERC needs to be informed in writing if a researcher plans to participate in a research project undertaken at another institution. Ethics approval or a letter of approval should be sought from both institutions prior to the commencement of the project.

d) Researchers are requested to keep complete records of all matters related to the animals used during a research project.

e) Researchers must choose a species appropriate for their research purpose.

f) When livestock are used in research projects, standard husbandry procedures that are carried out for research purposes need approval by the Animal ERC. Approval of the Department of Agriculture, Forestry and Fisheries may have to be obtained in the form of a section 20 permit. Approval is also required for using livestock to produce any biological products other than food or fibre. Approval is not required for regulatory inspection measures like control of external parasites or disease surveillance carried out by qualified personnel.

g) In their proposals submitted to the Animal ERC for approval, researchers must indicate the category of experiments according to table 1. The qualifications, experience and specific knowledge of researchers and employees about the performance of experimental procedures on the animals that are used must be stated in detail. Such researchers and employees must be competent in terms of the relevant South African legislation and the Rules for Veterinary and Para-veterinary Professionals, as stipulated by the South African Veterinary Council. The qualifications and experience of employees responsible for or involved in the care and husbandry of the animals that are used must also to be clearly dealt with in the proposal. A veterinarian must be affiliated to the project so that he/she may be called in during an emergency and is aware of the project and its outcomes.

h) In the instance where privately owned animals are used in a research project and where those animals remain the responsibility of their owners, their employees or other personnel will continue to attend to the day-to-day tasks of treatment, care and welfare. The various responsibilities of the owner and researcher in this regard must be stated clearly in the proposal. The owner should provide the researcher and Animal Ethics Review Committee with the details of the supervising veterinarian.

i) Researchers are obliged to submit annual progress reports to the Animal Ethics Review Committee. They need to inform the Animal Ethics Review Committee immediately if there are any unexpected adverse effects that have an impact on the animals resulting from the procedures and advice when a project is completed or discontinued. Annual progress reports should be submitted.

j) Research activities may not be performed before written approval has been granted by the Animal Ethics Review Committee.

k) The acquisition, care and use of animals for research purposes in South Africa must be done in accordance with the relevant South African legislation including the National Environmental Management: Biodiversity Act 101 of 2004 which aims to prevent bio-piracy of indigenous biological resources. Unisa adheres to the SANS 10386:2008, using and taking care of animals for Scientific Purposes, is a nationally accepted standard incorporated in certain provincial legislation UNISA also abides.

3.3.2 **Responsibilities of the institution**

UNISA should ensure through the Animal Ethics Review Committee that all research projects that make use of animals adhere to the standards and requirements of these guidelines which include monitoring, inspecting and assessing the acquisition, transportation, production, housing, care, use and disposal of animals (Refer to section 5 of the SANS). UNISA adheres to the implementation of SANS: 20386:2008, using and taking care of animals for scientific purposes standard, since it is a nationally accepted and recognised standard when doing animal research and has been accepted into certain provincial legislations.

3.4 Replacement

Techniques, models or systems that can partially or fully replace the use of animals must be investigated, developed and used.

3.5 Reduction

3.5.1 Reducing the number of animals used in research studies means that only the minimum number of animals necessary to obtain valid information or results is used.

3.5.2 Reducing the number of animals should not be considered if it means that they will suffer disproportionately.

3.5.3 An animal should not be exposed to repeated procedures unless it is essential for the purpose of the project.

3.5.4 The killing of healthy animals should be kept to the absolute minimum number required by the study.

3.6 Refinement

Refinement of animal sourcing, animal care and procedures means to minimise or eliminate physical or psychological distress imposed on the animals by the requirements of the research study.

3.6.1 Animals selected for a research project must be suitable for the specific purpose.

3.6.2 Animals should be taken care of in accordance with species-specific needs in terms of behavioural and biological requirements.

3.6.3 Animals bred in captivity should be used for projects involving wildlife species, where possible.

3.6.4 Researchers must be competent in the procedures their projects require; or they must make use of a person who is competent in such procedures.

3.6.5 Project design must be aimed at avoiding or minimising pain and distress.

3.6.6 Pain and distress in animals must be evaluated based on relevant species-specific knowledge. In principle it must be assumed that animals experience pain and distress in a manner like humans; and decisions on the welfare of animals should be based on this assumption.

3.6.7 Unpredicted pain or distress in animals should be alleviated immediately irrespective of the effect on the project. If alleviation is not possible, the animal should be euthanised without delay.

3.6.8 Any procedure that is carried out under anaesthesia or sedation in a medical or veterinary practice must be carried out using anaesthetics appropriate to the species and the procedure.

3.6.9 Appropriate pain management must be applied.

3.6.10 If the purpose of a procedure inhibits the use of anaesthetic or analgesic drugs to alleviate pain or distress, the procedure must be carried out in such a way as to minimise the degree of pain and distress and the duration of the procedure the animal is exposed to.

3.6.11 Death as an end-point; that is, when the death of an animal is a deliberate measure used to evaluate biological or chemical processes, responses or effects, must be avoided at all costs. If death as an end-point is unavoidable, distress should be minimised by choosing the earliest end-point that is compatible with the scientific objectives of the research study.

3.6.12 The duration of exposure of animals to procedures for research purposes must be kept to a minimum.

3.7 Wildlife studies

This section refers to free-living vertebrates, native, non-indigenous or feral species including captive-bred animals and those captured from free-living populations. All research projects and scientific studies involving wildlife are subject to Animal ERC approval. In addition to the requirements and responsibilities listed above, the following applies to research involving wildlife:

3.7.1 As many wildlife species are protected by national and/or international laws, conservation authorities must be consulted when these species are involved in the research and permits must be obtained, if required.

3.7.2 Observational studies of free-living animals must be designed in such a way that any impact on the animal's wellbeing is minimised.

3.7.3 As field studies may cause disturbances of the environment or habitat and subsequently adversely affect target and non-target species, such disturbances should be minimised.

3.7.4 Studies and research projects must not be repeated unnecessarily. When repeated studies are proposed, the Animal ERC must decide whether the repetition is scientifically justified for the specific research purpose. Animal ERC approval is required every time a study is to be repeated.

3.7.5 Capturing, holding, transporting, handling and releasing free-living animals must be in accordance with the following conditions:

a) The relevant permits must be obtained and submitted when applying for ethics clearance.

b) Researchers must be aware that the effects of numerous stressors can be accumulative.

c) Potential sources of stress must be identified and the measures to be taken to minimise them must be dealt with in the proposal.

d) Materials and equipment that are used when capturing, holding, handling and transporting animals must be maintained in good condition and kept clean to avoid injuries to animals or personnel handling animals and to minimise the risk of disease transmission.

e) When wildlife is captured any distress caused to the captured animals and the populations from which they are taken must be minimised.

f) When capturing is applied for, the proposal must include details about the capturing method and the skills of people involved in the process.

g) Handling, restraining and transporting captured free-living animals must be appropriate to the species and be done in such a way as to minimise the risk of injury and/or stress-induced disease.

h) The holding time for captured animals must be as short as possible to achieve the envisaged scientific objectives. An animal must be held in such a way as to minimise stress and the risk of injuries.

i) Animals should be released at the site of capture unless an alternative site is rationalised in the proposal and approved by the Animal Ethics Review Committee.

j) Individual animals must be identified by using a method that causes the least distress and interference with the normal functioning of the animal without hindering the research outcome. Identification done for routine husbandry purposes does not require Animal Ethics Review Committee approval.

k) Research on wildlife interaction and behaviour includes interaction between species (predator-prey), within a species (. competition) and between species and habitat. Ethical considerations regarding these studies are the degree of manipulation required and the effect of the research on the interaction. Proposals should deal with the wellbeing of the animals primarily targeted in the project

as well as the other species that may be affected adversely by the research.

4. USING PLANTS IN RESEARCH

4.1 UNISA supports the following ethical principles when plant research is conducted:

4.1.1 all plant researchers must abide by the stipulations of the National Environmental Management: Biodiversity Act 101 of 2004

4.1.2 the SANBI red list of endangered species in South Africa will be followed to ensure the classification of the plant species in terms of whether they are endangered or not

4.1.3 indigenous plant species will not be exploited and also not knowledge related to indigenous plants

4.1.4 respect must be upheld for the environment and or property from which plants or plant material is collected.

4.2 Regulations

4.2.1 Where required, permits should always be sought for transporting plant material nationally and internationally.

4.2.2 Respect for the habitat should prevail when plant material is collected.

4.2.3 Only the quantity of plant material required to conduct scientific research should be harvested.

4.2.4 Plant material should not endanger the existence of the species.

4.2.5 When agricultural research is done, cognisance should be taken of the points mentioned above when plants are used for crop purposes.

4.2.6 Experimental designs used in agricultural research should not endanger the environment or persons involved in the research.

4.2.7 Care should be taken to ensure that crop experimentation does not endanger future crops due to toxic residue in the ground caused by a particular experimental design.

4.2.8 The termination of an agricultural trial should be considered in terms of the toxicity of the remaining ground in which the crop or plant trials had been conducted.

4.2.9 Water used in the irrigation of plant trials should not damage the environment or any person, animal or living organism during or after the experiment or trial.

4.2.10 If insects are bred or used during any crop or plant-related research trials or experiments, all possible measures should be taken to ensure that the environment or any person, animal or living organism is not endangered in any way.

4.2.11 Spraying crops or any plants should follow strict health and safety procedures.

4.2.12 Plant boxes or any horticultural plant containers should be returned to their original state to ensure that the contamination of any new plant-related experiments is minimised.

4.2.13 All rules, regulations and guidelines that are used to guide plant research in the horticultural centre at UNISA must always be upheld.

5. MOLECULAR AND CELL RESEARCH

5.1 UNISA abides by all relevant Acts that regulate molecular and cell research as well as biomedical research in South Africa. Researchers conducting any form of molecular and/or cell research should follow the principles of the Health and Safety Act and all regulations and guidelines.

5.2 Researchers should adhere to the following ethical principles when conducting molecular and cell research:

5.2.1 Laboratories should have standard operating procedures (SOPs) for the procedures that will be undertaken in the laboratory.

5.2.2 Laboratories should ideally be accredited with the necessary documentation submitted as proof of accreditation.

5.2.3 Molecular and cell research projects should be registered with the relevant laboratory manager and a laboratory notebook/logbook of all processes in the experiment should be kept.

5.2.4 Researchers should adhere to standard operating procedures that apply in the laboratory they are utilising.

5.3 Researchers should adhere to the following ethical principles when conducting genetically modified organism research:

5.3.1 In South Africa, the development, production, use and application of genetically modified organisms including viruses and bacteriophages are regulated by the Genetically Modified Organisms Act 15 of 1997. The Act defines a *genetically modified organism* as" an organism the genes or genetic material of which has been modified in a way that does not occur naturally through mating or natural recombination or both, and 'genetic modification' shall have a corresponding meaning".

5.3.2 To comply with the provisions of the Act, research projects and scientific studies need to adhere to the following conditions:

a) Any institution or laboratory or similar facility where genetically modified organisms will be developed, produced, used or applied must be registered in terms of the Act.

b) A permit in terms of the Act has to be obtained in the case of importing, exporting, producing, using, applying, releasing and distributing genetically modified organisms.

c) Institutions, laboratories or similar facilities may be authorised for the use of genetically modified organisms in a contained manner or in a trial release.

d) The researcher or supervisor of the study must provide evidence of his/her qualifications and experience in using genetically modified organisms.

e) A research proposal must contain a risk assessment in terms of the possible impact of the programme on humans and/or the environment. In the event of an accident involving genetically modified organisms, a copy of the written notification to the Registrar in terms of the Act must be submitted to the relevant Ethics Review Committee.

f) The liability for any possible damage caused by the use or release of genetically modified organisms should be attended to in the proposal.

g) The public must be adequately notified about the trial release or the release of genetically modified organisms if it forms part of the study.

h) Waste management and disposal procedures must be included in the proposal as part of the study.

5.4 Researchers should adhere to the appropriate guidelines when conducting biomedical experiments. Various categories of biomedical experiments exist that include specific types of research such as:

EXPERIMENTS

Category	Examples and Comments
Category A: Experiments involving no living materials or those using plants, bacteria, protozoa or invertebrate animal species	Biochemical, botanical, bacteriological, microbiological or invertebrate animal studies; tissue cultures; studies on tissues obtained from autopsies or from slaughterhouses; and studies on embryonated eggs. Invertebrate animals have nervous systems and respond to noxious stimuli and must therefore also be treated humanely and animal behaviour studies in the normal environment.
Category B: Experiments on vertebrate animal species that are expected to produce little or no discomfort	Simply holding animals captive for experimental purposes; performing simple procedures, such as injection of relatively harmless substances and blood sampling, physical examinations; experiments on completely anesthetised animals which do not regain consciousness; food/water deprivation for short periods (a few hours); standard methods of euthanasia that induce rapid unconsciousness such as anaesthetic overdose or decapitation preceded by sedation of light anaesthesia and restraining animals for feeding of ticks and other blood sucking insect.
Category C: Experiments that involve some minor stress or pain (short duration pain) to animal species	Exposure of blood vessels or immolation of chronic catheters with anaesthesia; behavioural experiments that involve short-term stressful vertebrate restraint on animals while awake; immunisation employing Freund's adjuvant; noxious stimuli from which escape is possible; and surgical procedures under anaesthesia that may result in some minor post-operational discomfort. Category C procedures incur additional concern in proportion to the degree and duration of unavoidable stress or discomfort.
Category D: Experiments that involve significant but unavoidable stress or pain to vertebrate species.	Deliberate induction of behavioural stress in order to test its effect; major surgical procedures under anaesthesia that result in significant post-operational discomfort; induction of an anatomical or physiological deficit that will result in pain or distress; application of noxious stimuli from which escape is impossible; prolonged periods (up to several hours or more) of physical restraint; maternal deprivation with substitution of punitive surrogates; induction of aggressive behaviour leading to self-mutilation or intra-species aggression; procedures that produce pain in which anaesthetics are not used, such as toxicity testing with death as an end-point; production of radiation sickness; certain injections and stress and shock research that would result in pain, approaching the pain tolerance threshold; that is, the point at which intense emotional reactions occur. Category D experiments present explicit responsibility and the investigator has to explore alternative designs to ensure that animal distress is minimised or

	eliminated. Freund's adjuvant causes moderate to severe pain and inflammation and is a category D procedure.
Category E: Procedures that involve severe pain near, at or above the pain tolerance threshold of unanaesthetised conscious animals	Use of muscle relaxants or paralytic drugs such as succinyl choline or other inflicting curariform drugs used alone for surgical restraint without the use of anaesthetics; severe burn or trauma infliction on unanaesthetised animals; attempts to induce psychotic-like behaviour; killing by using microwave ovens designed for domestic kitchens or by strychnine; and inescapable severe stress or terminal stress. Category-E experiments are considered highly questionable or unacceptable, irrespective of the significance of anticipated results. Many of these procedures are specifically prohibited in the national policies of some countries (the USA) and their use therefore may result in the withdrawal of funds and/or registration.

PART 4

GUIDELINES FOR COMMUNITY ENGAGED RESEARCH

1. PREAMBLE

1.1 Community engagement within academia is understood as the scholarly activity of partnering and engaging with communities to exchange mutually beneficial knowledge and resources to the benefit of all. It recognises that academics will share the privileged domain of "knowledge production" with community members. It blends more traditional forms of knowledge production with "lived experience".

1.2 It is recognised that community-engaged research, such as community-based participatory research (CBPR) and participatory action research (PAR), are not methods of conducting research but are rather an orientation to research. Community engaged research can involve quantitative, qualitative or combined data gathering methods depending on the issues under investigation. This orientation emphasises ownership, participation, access, control and possession by non-academic researchers/communities as values in the process of creating knowledge and change.

1.3 Community engaged research combines knowledge with action and social change. The researcher must inform community leaders/gatekeepers and participants of the relevant aspects of the Policy on Research Ethics.

1.4 Although most scientific research methods used in PAR are not dissimilar from those used in other approaches, community engaged researchers may not anticipate specific research questions or methods until they become adequately acquainted with the community of interest. As such, collaborative enquiry is a precursor to a research intervention or planned activity. Research decisions and the foci of the research collaborations and partnerships arise from the community context.

2. ABBREVIATIONS

CBPR	Community-based Participatory Research
CER	Community Engaged Research
PAR	Participatory Action Research

3. PURPOSE

3.1 The Guidelines for community engaged research seek to encourage ethical and respectful collaboration with communities for mutually beneficial engaged research.

3.2 Researchers need to demonstrate how the knowledge and insight of the community will be included in identifying the specific issues to be researched.

3.3 Researchers must demonstrate how they will help community members to contribute their knowledge resources, such as local and indigenous knowledge and other pragmatic contributions, to the research. In this regard intellectual property rights will have to be negotiated and safeguarded.

3.4 Researchers must consider the timely provisioning of quality and relevant training for community research participants to build capacity in research participation.

4. SCOPE

4.1 The cyclical nature of PAR might require researchers to seek ethical approval for each cycle of the research process if the research project is rated as being of moderate or high risk. In low-risk interventions the researcher must undertake in the initial application to ensure that all methods that are chosen will adhere to ethical standards and guidelines. It is understood that the committee cannot evaluate the scientific validity and ethical merit of a protocol that has not yet described its methods.

4.2 Integrity in CER expressed in the researchers' commitment to adhere to the recognised principles of community-engaged research and in honest and ethical conduct and dissemination of findings in the generation of knowledge.

5. MORAL PRINCIPLES

UNISA promotes the following five internationally recognised moral principles of research conducted in community settings[4]:

- Respect (researchers should respect individuals, the community, local culture, customs and the research contributions of the participants and community)
- Honesty (researchers should strive to promote honest and clear sharing of information throughout the life cycle of the research with community leaders and participants)
- Justice and fairness (community leaders and participants must be meaningfully involved in proposed studies which include being informed about the benefits that the participants and the community might expect)
- Care (research should be aligned to local needs and improve the lives of communities)
- Process (researchers must follow the processes that are set out in research proposals carefully)

6. FAIR SUBJECT SELECTION

6.1 Researchers must consider how the selection of certain research participants will aid them in achieving their research goals. It is recognised in community research that some stakeholders may drop out and others may join the project. The same ethical considerations must apply to all participants who form part of the collaborative research enterprise.

6.2 A concerted effort must be made by researchers to consider how the research participants will benefit from the research. They could also consider how the outcomes of the research could have wider applicability.

6.3 Beneficiaries should be directly involved in the research. Researchers must carefully consider how and at what stages in the cycle the beneficiaries should be involved.

6.4 Barriers must be removed to facilitate participation by community members. Researchers should consider aspects such as flexibility in scheduling; the cost of transport to research sites and the safety of the participants etc.

6.5 A researcher must not discriminate when selecting and recruiting actual or prospective participants by including or excluding them on the grounds of race, age, sex, disability or religious or spiritual beliefs except where these criteria is essential

[4] San Code of Research Ethics. TRUST Project 2017

to the purpose of the research.

7. FAVOURABLE RISK-BENEFIT RATIO

7.1 Community-based research is specifically value-driven in that in the process of doing research, it can focus on the emancipation of a wide range of exploited or oppressed groups.

7.2 The risks to the participants need to be proportionate to the possible benefits to individual participants or to the community in general.

7.3 The researcher must demonstrate how he/she will go about sensitising themselves to the culture and politics of the community.

7.4 Power plays itself out in community politics and research might have political consequences which will have to be mitigated by the researcher. The researcher must consider these risks.

8. INFORMED CONSENT

8.1 Informed consent in community-based research must include the provision of complete information about objectives, risks and adverse effects on participants.

8.2 Informed consent must indicate the roles and responsibilities of participants and community stakeholders in the project.

8.3 Researchers must provide a fair and just representation of the research. They must caution against the overestimation of the benefits for the community and participants and formulation being biased to induce a positive answer.

8.4 Agreements must be made regarding the interpretation and ownership of data, authorship and the dissemination of findings and financial accountability.

8.5 The blurring of participant and researcher roles will necessitate special precautions for the protection of confidentiality.

8.6 Procedures should be put in place to ensure that the information provided is understood by participants, communities and stakeholders.

8.7 Researchers should place more emphasis on the information exchange and negotiation process between researchers and potential participants and these should be formalised in an informed consent form.

8.8 Potential research participants should be given the opportunity to discuss their decision with their families or peers.

8.9 Alternative ways, should be sought to record consent if individuals do not want to sign a consent form but are willing to participate in the proposed research. These can include using digital recordings of oral consent or signing a register.

8.10 In instances where the participants refuse to sign a consent form; are afraid to sign a consent form or refuse to be recorded, the researcher must keep a written record that participants have been informed, understood and accepted participation in the research but that they declined to sign.

8.11 In some instances, it might be important to obtain consent from respected, traditional or elected community leaders.

9. COMMUNITY INVOLVEMENT IN THE RESEARCH

9.1 Permission for research must be obtained from state authorities where needed but should not be confused with involvement of community bodies.

9.2 A 'functional' community body such as a community advisory board or a community committee should be involved in each research project. This can be an existing body, or one created for the specific purpose of the project. The community should at least be consulted during the planning stage of the research, on an *ad hoc* basis while the research is being conducted and they should be informed in a structured manner at the end of the research about the results.

9.3 Researchers must negotiate the method and particulars (authorship and co-authorship) of the release/dissemination of data (scientific journals or popular publications) with the community researchers. Researchers must consider the potential repercussions to the community if data (sensitive or not) is released prematurely or in an insensitive or any other manner.

9.4 Community participation must be ensured, and it is important to be realistic about time and resource constraints.

9.5 UNISA should be careful not to "overuse" a well-engaged community by doing research in the community too frequently. The Community Engagement and Outreach Directorate (DCEO) will keep track of the communities where community engaged projects are being conducted.

9.6 Where UNISA is providing an intervention as an outcome of any cycle of the research process as sole provider, it should be aware that the community may not feel able to refuse or criticise the results of the research and must guard against this risk.

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PART 5

GUIDELINES FOR THE USE OF INDUCEMENTS IN HUMAN PARTICIPANT RESEARCH

1. PREAMBLE

1.1 Many researchers experience research participation fatigue with the numbers of willing voluntary participants dwindling even in short surveys.

1.2 Inducements encourage participation in research and may be offered in some circumstances where; specifically, the recruitment of non-vulnerable participants is anticipated to be difficult[5].

1.3 For these guidelines 'inducements' include **fair reimbursement** of research participants according to the TIE framework (time, inconvenience, expenses) and **incentives** to negotiate access to and/or improve research participation from target populations. Incentivising participants constitutes anything that is given to participants to improve participation in research; it may be monetary or in kind. It is distinctly different from reimbursement.

1.4 A justification for this approach should be provided and the inducement should not unduly influence an informed choice about participation in research. An inducement should not undermine a potential participant's assessment of risk of harm.

2. DEFINITIONS

Children:	individuals under the age of 18 years.
Inducement:	is an action taken by the researcher that encourages a targeted population to participate in research, including reimbursement and incentives.
Incentives:	payment or concession to motivate targeted populations to participate in research.
Lottery:	is a system whereby a participant may win a prize by chance. A lottery involving research participants at a university is not regarded as a gaming activity.
Reimbursement:	is a fair repayment of the money equivalent to what the research participants have spent from their own pockets to participate in a research project guided by the TIE model (time, inconvenience and cost).
Undue inducements:	are offers by the researcher that result in people participating in research in which they would normally not participate due to having real objections based on risk or fundamental values.
Vulnerable groups/participants:	are potential research participants whose voluntary participation in a research projects may be unduly influenced by the benefits offered, associated with participation; that is, children, the elderly, pregnant women, people with a cognitive or mental impairment, prisoners or people on parole, students, people living

[5] Department of Health, RSA (2015). Ethics in Health Research: Principles, Processes and Structures

with HIV/AIDS, people in dependent relationships, persons with disabilities, socio-economically disadvantaged people, indigenous people and indigents.

3. PURPOSE

The purpose of this guideline is to guide research that considers utilising reimbursements and incentives to induce research participation.

4. USE OF INDUCEMENTS IN RESEARCH

4.1 Reimbursement

4.1.1 Reimbursement of transport costs, meals, time or effort expended or any opportunity that may be lost is allowed on condition that all participants are offered fair reimbursement and that such reimbursement is only aimed at reimbursing the participants. The following guidelines pertain to any form of reimbursement for participation in research.

4.1.2 It is crucial that participation remains voluntary to guarantee autonomy; this is a fundamental ethics principle of obtaining informed consent.

4.1.3 The amounts reimbursed must be appropriate to the physical cost expended, inconvenience or opportunity lost according to the TIE framework **(time, inconvenience** and other research-related **expenses**).

4.1.4 Participants must be made aware of the prospect of being reimbursed as part of the recruitment process.

4.1.5 Where children are involved in research, reimbursement should be made to the parents/guardians.

4.1.6 Reimbursement should not prohibit the prospective participants' independent decision to withdraw from the study at any moment. If the participant decides to withdraw from the study, reimbursement should still be paid for costs incurred or opportunity lost up to that stage.

4.2 Incentives

4.2.2 Incentives to motivate targeted populations to participate in research are allowed on condition that they do not constitute undue inducement.

4.2.3 Incentives may be monetary or in kind. It is crucial that participation remains voluntary; it is a fundamental ethics principle (autonomy) of obtaining informed consent.

4.2.4 Incentives must be appropriate to the risk level of the research and should not be disproportionate since it may lead to undue inducement.

4.2.5 Incentives should not prohibit the prospective independent decision of participants to withdraw from the study at any moment.

4.2.6 Ideally, in the principle of fairness, an incentive must be equal for all participants or every participant must have the same chance of receiving it. However, in some instances incentives may be different by design, custom and performance; for example, if the design requires more time and effort from some participants than from others, incentives may be different.

4.2.7 Incentives can be used in online and email surveys as well as in other forms of recruitment that typically have lower response rates.

4.2.8 Incentives should be used sparingly for participants younger than 18 years as they may easily constitute undue inducement. In instances where they are used they should be age-appropriate.

4.2.9 Participants should be given the option to decide whether they want to take the incentives or not.

4.2.10 Incentives may be in the form of a lottery

- The value of the prize must be given at the onset of the recruitment and informed consent process.
- The prize money/value must be appropriate to the risk level of the research and should not be disproportionate as it may lead to undue inducement.
- Participation in a lottery should not be compulsory as a result of participating in the research.
- All participants in the lottery must be told during the recruitment stage that they may participate in the lottery and have an equal chance of winning.
- In an instance where participants must provide their personal details to participate in a lottery, which may lead to negating the principle of anonymity, the researchers should take additional steps to ensure confidentiality of the participants' data.
- Participants must not pay any money to qualify for the lottery.

5 RESPONSIBILITIES

5.1 Responsibilities of researchers

5.1.2 If researchers decide to use any reimbursements or incentives in a study, they should justify their decision and provide sufficient information that would allow the ERC/REC to make an informed, principle-based decision, in particular explaining the procedures proposed to make the decision in a fair and just manner during the study.

5.1.3 If participants are informed during the recruitment stage that reimbursements or incentives are used, the researcher has the ethical obligation to honour this commitment.

5.1.4 Input from community members or other role players may be necessary in determining the amount or procedure of reimbursements or incentives during the planning stage of the research.

5.1.5 Researchers should adhere to relevant institutional policy and national guideline documents in determining the amount and procedure of reimbursement, including but not limited to the Department of Health "Ethics in Health Research: Principles, Processes and Structures".

5.2 Responsibilities of ERCs

5.2.2 The ERC should objectively weigh the benefits of using reimbursement or incentives to the level of risks, which means that some ethical considerations may outweigh the benefits.

5.2.3 The ERC must make sure that the reimbursements or incentives being offered to participants do not constitute undue inducement.

5.2.4 The ERCs should consider relevant institutional policy and national guideline documents in their review of the amount and procedure of reimbursement, including

but not limited the Department of Health “Ethics in Health Research: Principles, Processes and Structures” (2015).

5.2.5 Input from community members on the ERC or other role players may be constructive during ERC deliberations.

ACKNOWLEDGEMENTS AND WORKS CONSULTED

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PART 6

GUIDELINES FOR ONLINE RESEARCH

1. PREAMBLE

1.1 The use of online media for personal and professional reasons expands rapidly on social media research techniques. Consequently, researchers embrace the open, flexible and multitude of opportunities which involve recruiting, retaining and tracing research participants that comprise of opportunities for data collection, analysis and reporting.

1.2 Ethics of human participants' research may be universal in traditional research techniques (also known as 'offline' research techniques) and social media research techniques but at the same time is overwhelmingly enumerated and depended on the circumstances that require of researchers to remain responsible, accountable and transparent when conducting such research techniques.

1.3 Acknowledgement of the tension between educational research and social research and the trade-off between anonymity and science that are both bound by ethical and legal frameworks should be considered.

1.4 The moral integrity of the researcher is a critically important aspect and requires continuous reflection by researchers using social media as a research strategy to recruit, retain or trace research participants to reveal or disclose any personal identifiers and present trustworthy and valid research information without causing harm.

2. ABBREVIATIONS AND DEFINITIONS

IMR	Internet-Mediated Research
MOOCs	Massive Open Online Courses
SM	Social Media
SNSs	Social Networking Sites
IOT	Internet of Things

3. PURPOSE

3.1 This guide aims to be a starting point for researchers and students that are interested in conducting research through online research methodology to carefully consider the complexities of navigating the public-private domain distinction online:

3.1.1 to ensure valid, reliable and ethical use of proper online research designs

3.1.2 by having ERC approval

3.1.3 by using a protocol to secure informed consent where consent is deemed appropriate

3.1.4 in monitoring the participants' reactions to a study

3.1.5 by balancing risks and benefits appropriately

3.1.6 ensuring anonymity and confidentiality where these are appropriate to the research design and have been assured to participants

3.1.7 by embracing continuous professional development opportunities to remain current towards their professional and ethical conduct in the use of rapid changing online research.

4. SCOPE

4.1 Guidance of researchers and students to use online research methods such as social media (SM), internet mediated research (IMR) and massive open online courses (MOOCs) with the aim to enhance valid, reliable and trustworthy research data, findings and reporting as communicated with the research participants (where applicable).

5. DESCRIPTION OF ONLINE RESEARCH

5.1 Social media is web-based, computer-mediated internet tools and electronic platforms that individuals, professionals, teams, groups and organisations use to co-create, share or exchange information or ideas.

5.2 Content sharing through social media on computer-mediated internet tools and electronic platforms could include the use of text, photos, pictures and videos in a virtual and/or public domain of communities and network.

5.3 Virtual and/or public domain of communities and networks include the use of platforms such as Twitter, Facebook, YouTube, Instagram, message boards, social networks, patient forums, blogs, email, SMS, electronic journals, internet discussion forums and the comment sections of websites.

5.4 Website metadata produced by websites and analytics tools used in online advertisement, shopping analytics and website analytics (logs, cookies, transactions, and website analytics).

5.5 Virtual game worlds (World of Warcraft) and virtual social worlds (Farmville) are community-based resources designed to facilitate game sharing of content and information.

5.6 IOT refers to various devices that can communicate with another using the internet as a common platform and transmission protocol to generate more data that can be used to answer research questions (behavioural data, transaction data, administrative data, and commercially available databases).

5.7 Building up and executing a MOOC is an open real-life learning scenario for students and a whole web community that provides practical and conceptual e-learning experience with no theoretical audience and participation limit.

5.8 Online research combines knowledge with action and social change:

5.8.1 through social networking sites that have great pedagogical value to enhance more traditional library-based methods to locate secondary resources

5.8.2 within a broader context of concern related to participant privacy, surveillance and the commercial market for research data that require a greater consideration of the scope and impact of the consent provided by participants at registration as part of a “trade-off” involving the exchange of data and consent for services and information

5.8.3 that requires clarity about the role of third parties (data brokers) to offer educational opportunities for millions of users or students through massive open online courses.

5.9 Online research cause debates about the definition related to “big data”, as a result, key characteristics require ethical committees’ and researchers’ attention to guiding and facilitating the ethical integrity related to the research, such as:

5.9.1 Volume – traditional analytical tools cannot handle the high number of data.

5.9.2 Velocity – data result just about in real-time.

5.9.3 Variety – the datasets are complex and include various contextual sources such as unstructured text, media content (images, videos, logs, and other data sources).

5.9.4 Variability – be considered that data can be inconsistent across time

5.9.5 Veracity – be considered about the accuracy and data quality.

5.9.6 Complexity – be considered on how multiple databases are appropriately linked.

5.10 Data gathered through social media emerged at the beginning of the 21st century from large scale datasets that private companies generated for various reasons; nevertheless, this guide acknowledges that data collected via online research may exemplifies the description of the use of the term "big data".

6. ETHICAL OBLIGATIONS AND RESPONSIBILITIES RELATED TO SOCIAL MEDIA

6.1 Using IMR, MOOCs, SM, SNSs and/or IOT as a research strategy to recruit, retain or trace research participants are bound to cause no harm to participants, confidentiality and privacy related to any personal identifiers of any human subjects or organisations that participate in a research study; and to present trustworthy and valid research information.

6.2 Using IMR, MOOCs, SM, SNSs and/or IOT as a research strategy requires from researchers a responsibility to adhered to the POPIA regulations in terms of availability, integrity and confidentiality. According to POPIA, researchers are bound to develop a proper research plan, collection and analysis of data, record keeping, plan of action to destroy any and report writing personal identifiers of any human subjects or organisations that participate in a research study.

6.3 Requires of researchers to distinguish between open data and participant privacy regulations.

6.4 Using IMR, MOOCs, SM, SNSs and/or IOT requires of researchers to offer protection for personal identifiable information when disclosed to anyone, anonymity, protection of privacy and de-identified data.

7. HUMAN PARTICIPANTS RIGHT TO AUTONOMY IN ONLINE RESEARCH

7.1 All participants/respondents (individual, team and/or organisation levels) that take part in research through IMR, MOOCs, SM, SNSs and/or IOT are entitled to privacy and confidentiality, which is enshrined under the human right to privacy in the South African Constitution, the Protection of Personal Information Act 4 of 2013 and the National Health Act 61 of 2003.

7.2 Researchers must be aware that using pseudonyms and anonymity on social media platforms are not guaranteed because the identity and location of users can be traced through their linked accounts or IP addresses.

7.3 Disclosure of a participant/respondent's information may only be in accordance with a court order, participant/respondent's consent and in terms of the law.

7.4 Confidential information may only be shared with team members in a research project, if consent is obtained by the participant/respondent (or in the event of minors that are 18 years or younger, parents or legal guardian consent or assent of a minor).

7.5 Researchers can also share information if it is justified in the public interest, or if failure to do so will result in harm to the participant/respondent.

7.6 Researchers must obtain the written consent of the participant/respondent before publishing information (case histories and photographs) about them in media to which the public has access, whether the researcher believes the participant/respondent can be identified by the data.

7.7 If the participant/respondent in any IMR, MOOCs, SM, SNSs and/or IOT research project is a minor under the age of 18 years old, the researcher will require the written consent of the parent or legal guardian of the participant/respondent and assent of the minor.

7.8 Researchers sharing information or data for the sake of diagnosis, treatment or education and training through social media must ensure that the recipient of the information is not able to identify the respondent/participant from the research data disclosed.

7.9 Researchers must ensure that the recipients of participant/respondent data via social media understands that such information is given to them in confidence, which they must respect.

7.10 Disclosure of information on social media must be kept to the minimum necessary to protect the rights of participant/respondents that take part in any research project.

7.11 Researchers need to remain aware that there is always a risk that research data collected via IMR, MOOCs, SM, SNSs and/or IOT can be disseminated, even in so-called "invisible" groups (people read information that the researchers did not know could read the information).

7.12 Researchers are the key stakeholder that are responsible for keeping research data collected via IMR, MOOCs, SM, SNSs and/or IOT confidential even after any participant/respondent dies.

7.13 The Protection of Personal Information Act4 of 2013 outlaws the acquisition of data about an individual's health or sex life outside the healthcare setting and by having access to the social media profiles of human subjects, researchers may find themselves privy to personal human subject information that has not been shared in the research setting.

8. ONLINE RELATIONSHIP BETWEEN RESEARCHER AND HUMAN PARTICIPANTS/RESPONDENTS

8.1 Social media can blur the boundaries of the professional researcher-participant relationship and researchers' must be specific on how they intent to mitigate any risk of harm in such a relationship.

8.2 Researchers are advised not to interact with human participants/respondents via social media platforms as failure to maintain strict professional relationships with participants/respondents could result in other ethical dilemmas.

8.3 Researchers may choose to share personal information about themselves with human participants/respondents during face-to-face interviews or focus groups, but social media does not offer a similar level of control over the extent and type of content shared.

8.4 If researchers perform non-medical research in their communities, they must acknowledge that it is difficult to maintain appropriate professional boundaries since they may receive requests on social media from human participants/respondents that they know in a non-professional capacity. In these instances, researchers should consider the circumstances and implications before accepting these requests.

8.5 Researchers receiving an inappropriate message from a human participant/respondent via social media should politely re-establish professional boundaries; explain their reasons for doing so; and report such situations to the relevant RERC responsible for granting the ethics approval. Students must report the situation to their direct supervisor(s) and the relevant RERC responsible for granting the ethics approval.

8.6 It is advisable that the researcher/student keeps a log of all contacts and seek advice from the RERC chairperson/supervisor if personal contact persists.

8.7 Conducting research over social media with human participants/respondents with whom the researcher has a personal relationship is discouraged and should be done with the outmost discretion and approval by the ERC.

8.8 If researchers report online data and findings, it must be evidence-based, scientifically sound and generic and applicable to the audience.

8.9 Researchers should separate their professional and personal social media accounts to help maintain the appropriate professional boundaries.

8. PROTECTION OF UNISA RESEARCHERS' PROFESSIONAL IMAGE

8.1 If researchers use social media in their personal capacity, they must acknowledge the following consequences and should justify why they do research in a personal capacity because:

8.1.1 Researchers' online activity may nevertheless bring the profession into disrepute.

8.1.2 Information posted online may be disseminated, whether intended or not, to a larger audience and may be taken out of context. Researchers' need to acknowledge that media routinely monitor online activity to research stories or potential stories.

8.1.3 Researchers' employability and recruitment, limiting professional development and advancement could be harmed if content posted on social media is taken out of context.

8.1.4 Researchers must be cautious when using social media activities while conducting research and share activities within the set boundaries linked to ethical applications by limiting:

8.1.4.1 photographs of human subjects if permission is not obtained in advance

8.1.4.2 making unsubstantiated negative comments about individuals or organisations taking part in research

8.1.4.3 making informal and derogatory comments about human subjects that take part in research

8.1.4.4 making comments that can be perceived as racist, sexist, homophobic or otherwise prejudiced, even if meant in jest or as satire.

8.1.5 Researchers may engage fully in debates on research matters via social media; however, they must be aware that the laws regarding defamation, hate speech and copyright also extend to content shared via social media.

8.1.6 Researchers must not post their opinions on the probity, skill or professional reputation of their colleagues on social media, lest the public lose faith in the education and research profession.

8.1.7 Online relationships between researchers of varying levels of training should only be initiated on considering the purpose of the research relationship. In the instance of senior staff receiving social media requests from students or human subjects (or vice versa), the purpose might be mentorship, research or career advice. Regardless of intent, the traditional boundaries of the researcher-participant/supervisor-student relationship apply even in interactions via social media. These boundaries also extend to staff and other researchers internally or externally.

8.1.8 If colleagues or human subjects make derogatory or inappropriate comments on social media, researchers are advised to bring it to their attention discreetly, and not to engage or respond publicly on the social media platform. Report such behaviour via social media platform directly to the employer direct supervisor) and/or the ERC of the institution.

8.1.9 Researchers are advised to include disclaimers in their personal social media profiles, indicating that the views expressed therein are their own and not those of the research institution or the educational establishment they represent. However, this does not absolve the researcher from the above rules.

9. RISK-BENEFIT RATIO

9.1 The risk-benefit ratio for online research involving human participants requires of researchers to read part 6, specifically in conjunction with part one and two of the policy on research ethics.

9.2 The benefits of social media research are as follow:

9.2.1 Researchers can initiate contact and invite potential participants (recruitment), maintain contact with participants by posting updates on dedicated study sites (retention) and search for participants who have been lost to follow up (tracing) using social network sites.

9.2.2 Big and rich data platforms.

9.2.3 Participants have direct access to the research process.

9.2.4 MOOCs dictate a complex and authentic teaching environment to initiate and foster self-initiated and autonomous learning from a cognitive perspective on part of students. Students follow a constructivist learning paradigm with possible positive motivational effects in terms of individual and group success in web community settings and contexts.

9.3 The following are possible risks identified related the use of social media research that requires of researchers to justify how the risks could be mitigated:

9.3.1 Researchers use their own social media profile page to recruit, retain or attract research participants.

9.3.2 Researchers' experiences, training and attitude in terms of ethical matters related to the use of social media as a research platform.

9.3.3 Data being taken out of context; data used inappropriately; distortion of the context in which something was said; or findings used to defend or promote something other than what was intended (purpose and validity of the research).

9.3.4 Risks of judgement or ridicule or unsolicited attention on web, abuse or bullying.

9.3.5 Exploitation from organisations or use by the police or courts for purposes of prosecution in divorce cases, child custody cases or lawsuits.

9.3.6 Ethical issues of anonymity and privacy.

9.3.7 Ethical dilemmas related to vulnerable groups (children, teenagers, mental health and deceased).

9.3.8 Ethical dilemmas related to sensitive issues (race, gender, etc.).

9.3.9 Debates about whether it is a public-private domain is still ongoing.

9.3.10 Validity, generalisability and trustworthiness of data and findings.

9.4 High-risk research studies, using IMR, MOOCs, SM, SNSs and/or IOT as a research strategy involving identifiable personal information of participants or institutions could include:

9.4.1 Health research (as explained in the guidelines to the National Health Act (Ethics in Health Research: Principles, Processes and Structures, 2015, paragraph 1.1.3)

9.4.2 Direct marketing to minors.

9.4.3 Sharing students' private records/personal information online.

9.4.4 Publication of students' academic results.

9.4.5 Sharing the personal information of students with parents or employers.

9.5 Privacy breaches remain a critical concern for researchers:

9.5.1 If researchers use social media, they are advised to adjust their privacy settings to restrict public access.

9.5.2 Researchers need to be aware that:

9.5.2.1 even with advanced security measures and end-to-end encryption, complete privacy on social media cannot be guaranteed since there is always a risk that content could be shared beyond the scope of the research study

9.5.2.2 once content is shared online and even if content is deleted, the post remains on the internet permanently

9.5.2.3 if they are uncertain about whether it is ethically and/or legally permissible to share content about a research project via social media, it is best to find advice first before posting the information.

9.6 Be aware of the following key attributes related to the use of social media data basis that could have implications for validity and reliability:

9.6.1 Social media users do not represent a population that could result in biases and could be difficult to infer findings to the general population.

9.6.2 'Organic' real-time data is seldom created on social media for research purposes which means that large amounts of data may be irrelevant or in a format that is difficult to analyse.

9.6.3 Online behaviour versus offline behaviour is a continuous tension for social research purposes via social media that requires of researchers to be specific on what the value-action gap entails related to the research topic.

9.6.4 Private ownership of platforms and data may require researchers to access data governed by organisations that own the data and their privacy agreements with users may prevent researchers to use such data.

9.6.5 Social media platforms regularly change functionality, settings and popularity of posts, which affect the way in which data is collected and analysed and makes it difficult to ensure consistency in research across longer timeframes.

Acknowledgements and Works Consulted

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